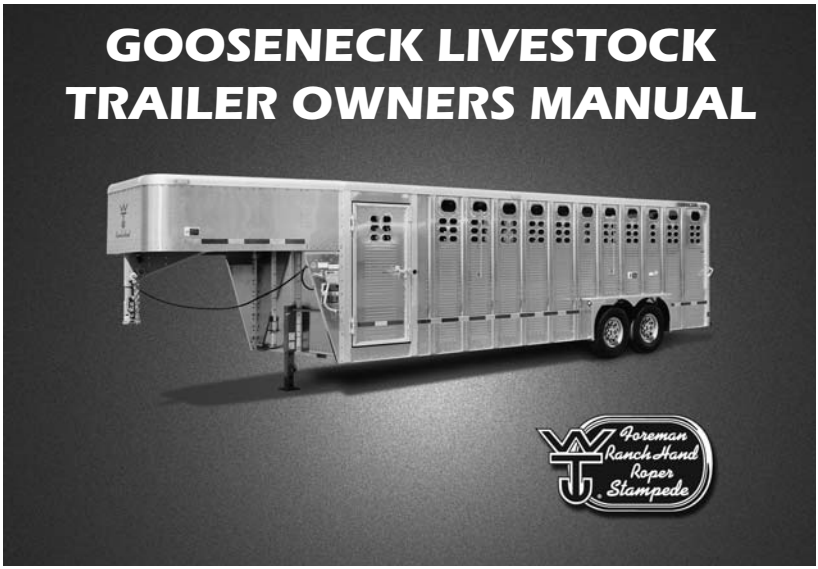
Wilson Trailer Company

GOOSENECK LIVESTOCK TRAILER OWNERS MANUAL



This manual has been prepared to help you operate your new Wilson trailer successfully, economically, and safely. Should you have any questions, we ask that you contact a Wilson Trailer Company factory representative immediately for a clear explanation.

We thank you for expressing your confidence in us through the purchase of your new Wilson Gooseneck trailer.

We want you to know that it was designed to meet your specific needs for a livestock trailer and was built for long life and low cost operation. With regular, proper maintenance and your common sense use, we are confident that it will do so.

Wilson
TRAILER COMPANY
Since 1890... A Good Name to Have Behind You!™

Additional owner's manuals and decal kits for this trailer are available without charge.

This manual Includes:

- **Certificate of Limited Warranty**
- **Disclaimer and Exclusive Remedies to Which the Sale is Subject**

MODEL NO. _____ SERIAL NO. _____

This safety alert symbol is to raise your awareness to important messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

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Normal Trailer Operation

This Wilson trailer is designed for operation within legal highway speed limits on reasonable road surfaces for the type of service it was built to perform, in accordance with the noted weight restrictions.

Normal use means the loading, unloading and transportation of uniformly distributed legal loads, in a manner which does not subject the trailer to stresses or impacts greater than imposed by reasonable use.

This trailer was built to carry cargo within the two weight ratings on the identification plate located on the road side of the trailer near the front.

The GAWR (gross axle weight rating) is the structural capability of the lowest rated member of the running gear component: suspension and spring system, hub, wheels and drums, rims, bearings, brakes, axles, or tires.

The GVWR (gross vehicle weight rating) is the structural capability of the trailer when supported by the kingpin and axles with the load uniformly distributed throughout the cargo space.

CAUTION

The maximum load indicated on the identification plate may not be a legal load on the highway you plan to use. States have differing laws and regulations affecting vehicle lengths and weights on roads that are not a part of the primary interstate road system.

Loading and Transport of Livestock

The loading of the trailer is important! Keep the center of gravity as low as possible. Proper placement of the larger animals should be considered.

Because load types vary, the driver needs to drive with appropriate care and within the limits of the load.

The well being of the gooseneck livestock trailer is dependent on the stock density, ventilation, skill of driving, and quality of roads. **Frequent inspection of livestock and careful driving cannot be over-emphasized!**

Modification of Trailer

Any modification made to the trailer must comply with DOT and NHTSA regulations and must not compromise the gross vehicle weight rating (GVWR) of the trailer.
(Rev. 12-98)

WARNING

Any operation of the trailer outside the limitations stated in this manual will void any responsibility of Wilson Trailer Company for any of its results.

CAUTION

Personal Injury, death, and property damage may result from improper operation or unsafe practices. Be sure to read and follow all decals and emblems carefully.

Decals and Emblems

The following section contains the decals and emblems used on Wilson Livestock Trailers. Due to differences in configurations and equipment, your trailer may or may not use all the decals and emblems listed. Newer trailers may also have decals and emblems that differ from older trailers. Replace damaged or missing decals promptly.

ABB-01505-B

AAA-05604

AAA-06462-CK

AAA-06462-BV

AAA-06462-BT

AAA-05604-C

AAA-05564

THIS VEHICLE IS CONSTRUCTED
UNDER ONE OR MORE OF THE
FOLLOWING U.S. OR CANADA PATENTS:
3292967 2970861 202879
4153289 4293158 4277096
4305694 1105526 4114944
OTHER PATENTS APPLIED FOR.
WILSON TRAILER COMPANY • SIOUX CITY, IOWA
A-5564

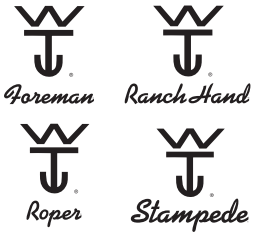
AAA-06891-GP

FHWA PERIODIC INSPECTION
This vehicle has passed inspection in accordance with 49 CFR 396.17 through 396.23. The inspection report is located at:
WILSON TRAILER COMPANY
4400 South Lewis Boulevard
Sioux City, Iowa 51106
Telephone (712) 252-6500
JAN FEB MAR APR MAY JUN 2002 2003
JUL AUG SEP OCT NOV DEC 2004 2005
DATE OF INSPECTION
WTC
A-6891-GP

AAA-06462-AW

ABB-01505-F/G

AAA-06891-LQ



AAA-06891-AK

ALIGNMENT CHECK
For extended tire wear, suspension alignment must be checked after an initial break in period and at regular intervals.
3-89 A-6891-AK

AAB-01545-A

IMPORTANT
OPERATING INSTRUCTIONS
BEFORE TRAVELING, BE SURE THAT:
1. DIVIDE GATES ARE SECURED IN EITHER "OPEN" OR "CLOSED" POSITION. IN STATIONARY DECK MODELS, GATES MUST BE CLOSED AND LATCHED.
2. ROLL-UP END GATES ARE CLOSED.
3. CLEAN-OUT DOORS ARE CLOSED AND LATCHED.
4. ROOF HATCHES AND TRAP DOORS ARE CLOSED.
5. LIFT DECKS ARE RESTING FIRMLY ON DECK RAILS WITH SLACK CABLES.
W.T.C. 9-96 S-1545-A

AAA-06462-CD

CAUTION
MAKE CERTAIN ROLLUP, SWING AND HALF SLIDE GATES AT THE REAREND ARE CLOSED WHILE TRAILER IS BEING OPERATED OR PARKED.
W.T.C. 6-93 A-6462-CD

AAA-06891-C

AAA-06492-BL

WARNING
Check wheel nuts after initial 50 to 100 miles of service. See Owner's Manual for correct torque requirements. Failure to do so may result in equipment damage or personal injury.
9-94 A-6891-C

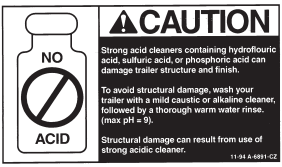
AAA-06891-GT

CAUTION
Do not pour any fluid into service gladhand.
Doing so will result in valve failure and void warranty.
WTC 10-01 A-6891-GT

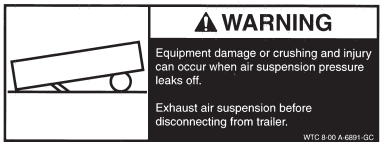
AAA-06891-AH

WARNING
Failure to use properly matched wheels, studs, brake drums, or capnuts will result in equipment damage, and could result in injury or DEATH if wheel comes off.

AAA-06891-CZ


NO
ACID
CAUTION
Strong acid cleaners containing hydroflouric acid, sulfuric acid, or phosphoric acid can damage trailer structure and finish.
To avoid structural damage, wash your trailer with a mild caustic or alkaline cleaner, followed by a thorough warm water rinse. (max pH = 9).
Structural damage can result from use of strong acidic cleaner.
11-94 A-6891-CZ

AAA-06891-GC


WARNING
Equipment damage or crushing and injury can occur when air suspension pressure leaks off.
Exhaust air suspension before disconnecting from trailer.
WTC 8-00 A-6891-GC

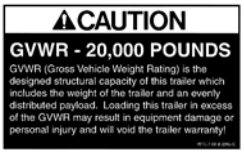
AAA-06492-BP

AAA-06462-BD

AAA-06492-BQ

CAUTION
CHECK BATTERY BEFORE TOWING. CHARGED BATTERY REQUIRED FOR PROPER OPERATION OF THE BREAKAWAY BRAKE APPLICATION.
W.T.C. 1-96 A-6462-BQ

B-02395-C*


CAUTION
GVWR - 20,000 POUNDS
GVWR (Gross Vehicle Weight Rating) is the designed structural capacity of this trailer which includes the weight of the trailer and an evenly distributed payload. Loading this trailer in excess of the GVWR may result in equipment damage or personal injury and will void the trailer warranty!

AAA-06891-MA

NOTICE
PLEASE BE AWARE THAT STAINING, DISCOLORATION, AND CORROSION CAN AND MAY APPEAR ON ALUMINUM TRAILERS. THIS CAN APPEAR AT ANYTIME FOR VARIOUS REASONS AND IS BEYOND THE CONTROL OF WILSON TRAILER.
EXPOSURE TO CLEANSERS, HIGHWAY TREATMENT AND DE-ICING CHEMICALS ALONG WITH GENERAL WEATHER CONDITIONS OR A COMBINATION OF THE ABOVE CAN BE CAUSE FOR STAINING AND CORROSION.
WILSON TRAILER IS NOT RESPONSIBLE FOR THESE OCCURRENCES AND ANY STAINING OR DISCOLORATION IS NOT COVERED BY WILSON TRAILER WARRANTY.
WTC 8-15 AAA-06891-MA

AAA-06462-BO

CAUTION
DO NOT ATTACH CABLE TO HITCH BALL. CABLE MUST BE ATTACHED TO THE TOWING VEHICLE FOR THE PROPER OPERATION OF THE VEHICLE.
W.T.C. 1-96 A-6462-BO

(Rev. 8-15)

Note: Emblems will vary with trailer. Please check GVWR rating when ordering emblem. Other emblems available per trailer rating.

AAA-06891-GB

NOTICE

The Owner's Manual contains important information regarding safe and proper operation of this trailer. Read Owner's Manual before using trailer.

WTC 7-00 A-6891-GB

AAA-06891-EC

INFORMATION

This trailer is equipped with manual adjust brakes. Check the brake adjustment after the first 200 miles and every 3000 miles or as necessary thereafter. If brake adjustment is required use the procedure in the Dexter service manual.

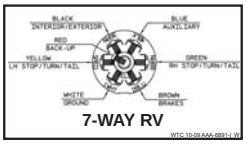
A-6891-EC

AAA-06891-EB

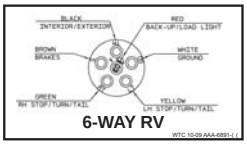
INFORMATION

This trailer is equipped with automatic forward adjust brakes. To ensure the proper operation of the adjusters, please inspect the brakes for proper adjustment every 3000 miles or as necessary. If brake adjustment is required use the procedures in the Dexter service manual.

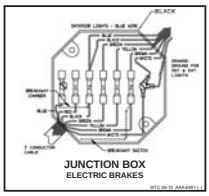
A-6891-EB



AAA-06891-KW



AAA-06891-KX



AAA-06891-KY

Over-The-Road Safe Handling

IMPORTANT: Like any other vehicles, semi-trailers can tip or slide out of control if turns are negotiated at too high a speed or when making violent maneuvers such as abrupt lane changes or other evasive actions to avoid obsacles.

YOU AND YOUR SAFETY

1. You - the OPERATOR - have control of the most important factors that affect vehicle stability. Trailers are important tools in our transportation industry and, like any tool, are safe in the hands of a properly qualified operator.
2. The fifth wheel should be securely mounted to the tractor frame.
3. The driver should be familiar with the characteristics of the particular trailer and the load being transported.
4. The driver should be familiar with the nature of the roads and traffic which may be encountered during the trip.
5. Stability:
   Within the relatively narrow confines of road laws limiting vehicle size and weight, together with the characteristics of available tires, suspensions, and other components, there is little that a manufacturer can do to affect the inherent stability of a trailer other than keeping the loading decks as low as feasible, considering the requirements for loading space and adequate tire clearance. This means that the major factors affecting operational stability are the knowledge and skill of the driver. The predominant causes of the rollover accidents are:

   Excessive speed.
   Violent swerving or turning.
   Application of brakes or tractor power while turning.
   Entering curves at too high a speed may be caused by one of the following factors:

Over-The-Road Safe Handling

a. Traveling at freeway speeds for long periods of time and failing to recognize the high speed of travel and reducing it before entering freeway interchanges or other curves requiring a reduced and controlled speed.

b. Lack of familiarity with the vehicle characteristics to recognize its safe speed with relation to posted speed limits on curves, which are usually determined with automobile traffic in mind.

c. Failure to reduce speed sufficiently when approaching congested traffic such as might be found at traffic signals on highways. With the advent of today's more powerful and higher torque engines, the original practice of maintaining momentum to avoid acceleration in traffic is outmoded.

6. Tire Characteristics: High pressure truck/trailer tires have different characteristics under high speed cornering conditions than do passenger car tires. As an extreme example, it is fairly common knowledge that a skilled race car driver can consistently "drift" his racer around tight turns where very high lateral "g" forces are encountered. However, truck/trailer tires which are designed for carrying high loads over long distances have substantially different characteristics, and their lateral stability becomes unpredictable when lateral forces approach 0.4 g. This means that commercial vehicles must be operated in a conservative manner when cornering.

7. Braking and Acceleration: Either braking or accelerating while cornering can significantly reduce the stability of the vehicle and should be avoided. The best driving practice is to decelerate to a safe conservative speed before entering a corner or approaching congested traffic, and then to apply only moderate power until a straight path has been reestablished.

(Rev. 6-02)

Wheel Torques

Proper torquing and retorquing the wheel nuts are critical to prevent the premature loss of wheel equipment

Wheels must be checked and retorqued after 50 to 100 miles of use. This is important every time you change a wheel.

Steps for Determining Correct Load Limit - Trailer

Determining the load limits of a trailer includes more than understanding the load limits of the tires alone. On all trailers there is a Federal certification/VIN label that is located on the forward half of the left (road) side of the unit. This certification/VIN label will indicate the trailer's Gross Vehicle Weight Rating (GVWR). This is the most weight the fully loaded trailer can weigh. It will also provide the Gross Axle Weight Rating (GAWR). This is the most a particular axle can weigh. If there are multiple axles, the GAWR of each axle will be provided.

If your trailer has a GVWR of 10,000 pounds or less, there is a vehicle placard located in the same location as the certification label described above. This placard provides tire and loading information. In addition, this placard will show a statement regarding maximum cargo capacity. Cargo can be added to the trailer, up to the maximum weight specified on the placard. The combined weight of the cargo is provided as a single number. In any case, remember: the total weight of a fully loaded trailer can not exceed the stated GVWR

For trailers with living quarters installed, the weight of water and propane also need to be considered. The weight of fully filled propane containers is considered part of the weight of the trailer before it is loaded with cargo, and is not considered part of the disposable cargo load. Water however, is a disposable cargo weight and is treated as such. If there is a fresh water storage tank of 100 gallons, this tank when filled would weigh about 800 pounds. If more cargo is being transported, water can be off-loaded to keep the total amount of cargo added to the vehicle within the limits of the GVWR so as not to overload the vehicle. Understanding this flexibility will allow you, the owner, to make choices that fit your travel needs.

When loading your cargo, be sure it is distributed evenly to prevent overloading front to back and side to side. Heavy items should be placed low and as close to the axle positions as reasonable. Too many items on one side may overload a tire. The best way to know the actual weight of the vehicle is to weigh it at a public scale. Talk to your dealer to discuss the weighing methods needed to capture the various weights related to the trailer. This would include the weight empty or unloaded, weights per axle, wheel, hitch or king-pin, and total weight.

Excessive loads and/or underinflation cause tire overloading and, as a result, abnormal tire flexing occurs. This situation can generate an excessive amount of heat within the tire. Excessive heat may lead to tire failure. It is the air pressure that enables a tire to support the load, so proper inflation is critical. The proper air pressure may be found on the certification/VIN label and/or on the Tire Placard. This value should never exceed the maximum cold inflation pressure stamped on the tire.

Steps for Determining Correct Load Limit - Trailer

Trailers 10,000 Pounds GVWR or Less

TIRE AND LOADING INFORMATION

The weight of cargo should never exceed 907 kg or 2000 lbs.

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
FRONT	20.5x8.0-10(E)	621kPA or 90 PSI	
REAR			
SPARE			

1. Locate the statement, "The weight of cargo should never exceed XXX kg or XXX lbs.," on your vehicle's placard.

2. This figure equals the available amount of cargo and luggage load capacity.

3. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity.

The trailer's placard refers to the Tire Information Placard attached adjacent to or near the trailer's VIN (Certification) label at the left front of the trailer.

Trailers Over 10,000 Pounds GVWR

NOTE: These trailers are not required to have a tire information placard on the vehicle.

Determine the empty weight of your trailer by weighing the trailer using a public scale or other means. This step does not have to be repeated.

Locate the GVWR (Gross Vehicle Weight Rating) of the trailer on your trailer's VIN (Certification) label.

Subtract the empty weight of your trailer from the GVWR stated on the VIN label. That weight is the maximum available cargo capacity of the trailer and may not be safely exceeded.

Steps for Determining Correct Load Limit -Tow Vehicle

1. Locate the statement, "The combined weight of occupants and cargo should never exceed XXX lbs.," on your vehicle's placard.

2. Determine the combined weight of the driver and passengers who will be riding in your vehicle.

3. Subtract the combined weight of the driver and passengers from XXX kilograms or XXX pounds.

4. The resulting figure equals the available amount of cargo and luggage capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.).

5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage capacity calculated in Step # 4.

6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult the tow vehicle's manual to determine how this weight transfer reduces the available cargo and luggage capacity of your vehicle.

Glossary of Tire Terminology

Accessory weight

The combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio and heater, to the extent that these items are available as factory-installed equipment (whether installed or not).

Bead

The part of the tire that is made of steel wires, wrapped or reinforced by ply cords and that is shaped to fit the rim.

Bead separation

This is the breakdown of the bond between components in the bead.

Bias ply tire

A pneumatic tire in which the ply cords that extend to the beads are laid at alternate angles substantially less than 90 degrees to the centerline of the tread.

Carcass

The tire structure, except tread and sidewall rubber which, when inflated, bears the load.

Glossary of Tire Terminology

Chunking
The breaking away of pieces of the tread or sidewall.

Cold inflation pressure
The pressure in the tire before you drive.

Cord
The strands forming the plies in the tire.

Cord separation
The parting of cords from adjacent rubber compounds.

Cracking
Any parting within the tread, sidewall, or inner liner of the tire extending to cord material.

CT
A pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire.

Curb weight
The weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight optional engine.

Extra load tire
A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

Groove
The space between two adjacent tread ribs.

Gross Axle Weight Rating
The maximum weight that any axle can support, as published on the Certification / VIN label on the front left side of the trailer. Actual weight determined by weighing each axle on a public scale, with the trailer attached to the towing vehicle.

Gross Vehicle Weight Rating
The maximum weight of the fully loaded trailer, as published on the Certification / VIN label. Actual weight determined by weighing trailer on a public scale, without being attached to the towing vehicle.

Hitch Weight

The downward force exerted on the hitch ball by the trailer coupler.

Innerliner

The layer(s) forming the inside surface of a tubeless tire that contains the inflating medium within the tire.

Innerliner separation

The parting of the innerliner from cord material in the carcass.

Intended outboard sidewall

The sidewall that contains a white-wall, bears white lettering or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other sidewall of the tire or the outward facing sidewall of an asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle.

Light truck (LT) tire

A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

Load rating

The maximum load that a tire is rated to carry for a given inflation pressure.

Maximum load rating

The load rating for a tire at the maximum permissible inflation pressure for that tire.

Maximum permissible inflation pressure

The maximum cold inflation pressure to which a tire may be inflated.

Maximum loaded vehicle weight

The sum of curb weight, accessory weight, vehicle capacity weight, and production options weight.

Measuring rim

The rim on which a tire is fitted for physical dimension requirements.

Pin Weight

The downward force applied to the 5th wheel or gooseneck ball, by the trailer kingpin or gooseneck coupler.

Glossary of Tire Terminology

Non-pneumatic rim

A mechanical device which, when a non-pneumatic tire assembly incorporates a wheel, supports the tire, and attaches, either integrally or separably, to the wheel center member and upon which the tire is attached.

Non-pneumatic spare tire assembly

A non-pneumatic tire assembly intended for temporary use in place of one of the pneumatic tires and rims that are fitted to a passenger car in compliance with the requirements of this standard.

Non-pneumatic tire

A mechanical device which transmits, either directly or through a wheel or wheel center member, the vertical load and tractive forces from the roadway to the vehicle, generates the tractive forces that provide the directional control of the vehicle and does not rely on the containment of any gas or fluid for providing those functions.

Non-pneumatic tire assembly

A non-pneumatic tire, alone or in combination with a wheel or wheel center member, which can be mounted on a vehicle.

Normal occupant weight

This means 68 kilograms (150 lbs.) times the number of occupants specified in the second column of Table I of 49 CFR 571.110.

Occupant distribution

The distribution of occupants in a vehicle as specified in the third column of Table I of 49 CFR 571.110.

Open splice

Any parting at any junction of tread, sidewall, or innerliner that extends to cord material.

Outer diameter

The overall diameter of an inflated new tire.

Overall width

The linear distance between the exteriors of the sidewalls of an inflated tire, including elevations due to labeling, decorations, or protective bands or ribs.

Ply

A layer of rubber-coated parallel cords.

Pneumatic tire

A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel, provides the traction and contains the gas or fluid that sustains the load.

Production options weight

The combined weight of those installed regular production options weighing over 2.3 kilograms (5 lbs.) in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim.

Radial ply tire

A pneumatic tire in which the ply cords that extend to the beads are laid at substantially 90 degrees to the centerline of the tread.

Recommended inflation pressure

This is the inflation pressure provided by the vehicle manufacturer on the Tire Information label and on the Certification / VIN tag.

Reinforced tire

A tire designed to operate at higher loads and at higher inflation pressures than the corresponding standard tire.

Rim

A metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

Rim diameter

This means the nominal diameter of the bead seat.

Rim size designation

This means the rim diameter and width.

Rim type designation

This means the industry of manufacturer's designation for a rim by style or code.

Rim width

This means the nominal distance between rim flanges.

Section width

The linear distance between the exteriors of the sidewalls of an inflated tire, excluding elevations due to labeling, decoration, or protective bands.

Glossary of Tire Terminology

Sidewall
That portion of a tire between the tread and bead.

Sidewall separation
The parting of the rubber compound from the cord material in the sidewall.

Special Trailer (ST) tire
The "ST" is an indication the tire is for trailer use only.

Test rim
The rim on which a tire is fitted for testing, and may be any rim listed as appropriate for use with that tire.

Tread
That portion of a tire that comes into contact with the road.

Tread rib
A tread section running circumferentially around a tire.

Tread separation
Pulling away of the tread from the tire carcass.

Treadwear indicators (TWI)
The projections within the principal grooves designed to give a visual indication of the degrees of wear of the tread.

Vehicle capacity weight
The rated cargo and luggage load plus 68 kilograms (150 lbs.) times the vehicle's designated seating capacity.

Vehicle maximum load on the tire
The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing by two.

Vehicle normal load on the tire
The load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table I of CRF 49 571.110) and dividing by 2.

Weather side

The surface area of the rim not covered by the inflated tire.

Wheel center member

In the case of a non-pneumatic tire assembly incorporating a wheel, a mechanical device which attaches, either integrally or separably, to the non-pneumatic rim and provides the connection between the non-pneumatic rim and the vehicle; or, in the case of a non-pneumatic tire assembly not incorporating a wheel, a mechanical device which attaches, either integrally or separably, to the non-pneumatic tire and provides the connection between tire and the vehicle.

Wheel-holding fixture

The fixture used to hold the wheel and tire assembly securely during testing.

Tire Safety - Everything Rides On It

The National Traffic Safety Administration (NHTSA) has published a brochure (DOT HS 809 361) that discusses all aspects of Tire Safety, as required by CFR 575.6. This brochure is reproduced in part below. It can be obtained and downloaded from NHTSA, free of charge, from the following web site:

http://www.nhtsa.dot.gov/cars/rules/TireSafety/ridesonit/tires_index.html

Studies of tire safety show that maintaining proper tire pressure, observing tire and vehicle load limits (not carrying more weight in your vehicle than your tires or vehicle can safely handle), avoiding road hazards, and inspecting tires for cuts, slashes, and other irregularities are the most important things you can do to avoid tire failure, such as tread separation or blowout and flat tires

These actions, along with other care and maintenance activities, can also: improve vehicle handling, help protect you and others from avoidable breakdowns and accidents, improve fuel economy, and increase the life of your tires.

This booklet presents a comprehensive overview of tire safety, including information on the following topics: basic tire maintenance, uniform tire quality grading system, fundamental characteristics of tires, and tire safety tips.

Use this information to make tire safety a regular part of your vehicle maintenance routine. Recognize that the time you spend is minimal compared with the inconvenience and safety consequences of a flat tire or other tire failure.

Safety First - Basic Tire Maintenance

Properly maintained tires improve the steering, stopping, traction, and load-carrying capability of your vehicle. Underinflated tires and overloaded vehicles are a major cause of tire failure. Therefore, as mentioned above, to avoid flat tires and other types of tire failure, you should maintain proper tire pressure, observe tire and vehicle load limits, avoid road hazards, and regularly inspect your tires.

Finding Your Vehicle's Recommended Tire Pressure and Load Limits

Tire information placards and vehicle certification labels contain information on tires and load limits. These labels indicate the vehicle manufacturer's information including:

- Recommended tire size
- Recommended tire inflation pressure
- Vehicle capacity weight (VCW-the maximum occupant and cargo weight a vehicle is designed to carry)
- Front and rear gross axle weight ratings (GAWR- the maximum weight the axle systems are designed to carry).

Both placards and certification labels are permanently attached to the trailer near the left front.

Understanding Tire Pressure and Load Limits

Tire inflation pressure is the level of air in the tire that provides it with load-carrying capacity and affects the overall performance of the vehicle. The tire inflation pressure is a number that indicates the amount of air pressure-measured in pounds per square inch (psi)-a tire requires to be properly inflated. (You will also find this number on the vehicle information placard expressed in kilopascals (kpa), which is the metric measure used internationally.)

Manufacturers of passenger vehicles and light trucks determine this number based on the vehicle's design load limit, that is, the greatest amount of weight a vehicle can safely carry and the vehicle's tire size. The proper tire pressure for your vehicle is referred to as the "recommended cold inflation pressure." (As you will read below, it is difficult to obtain the recommended tire pressure if your tires are not cold.)

Because tires are designed to be used on more than one type of vehicle, tire manufacturers list the "maximum permissible inflation pressure" on the tire sidewall. This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

Checking Tire Pressure

It is important to check your vehicle's tire pressure at least once a month for the following reasons:

- Most tires may naturally lose air over time.
- Tires can lose air suddenly if you drive over a pothole or other object or if you strike the curb when parking.
- With radial tires, it is usually not possible to determine underinflation by visual inspection.

For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores, and other retail outlets.

The recommended tire inflation pressure that vehicle manufacturers provide reflects the proper psi when a tire is cold. The term cold does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or compensate for the extra pressure in warm tires.

Steps for Maintaining Proper Tire Pressure

- Step 1: Locate the recommended tire pressure on the vehicle's tire information placard, certification label, or in the owner's manual.
- Step 2: Record the tire pressure of all tires.
- Step 3: If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure.
- Step 4: If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add.
- Step 5: At a service station, add the missing pounds of air pressure to each tire that is underinflated.
- Step 6: Check all the tires to make sure they have the same air pressure (except in cases in which the front and rear tires are supposed to have different amounts of pressure).

Safety First - Basic Tire Maintenance

If you have been driving your vehicle and think that a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle's tire information placard or certification label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer's recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, don't forget to recheck and adjust the tire's pressure when you can obtain a cold reading.

Tire Size

To maintain tire safety, purchase new tires that are the same size as the vehicle's original tires or another size recommended by the manufacturer. Look at the tire information placard, the owner's manual, or the sidewall of the tire you are replacing to find this information. If you have any doubt about the correct size to choose, consult with the tire dealer.

Tire Tread

The tire tread provides the gripping action and traction that prevent your vehicle from slipping or sliding, especially when the road is wet or icy. In general, tires are not safe and should be replaced when the tread is worn down to 1/16 of an inch. Tires have built-in treadwear indicators that let you know when it is time to replace your tires. These indicators are raised sections spaced intermittently in the bottom of the tread grooves. When they appear "even" with the outside of the tread, it is time to replace your tires. Another method for checking tread depth is to place a penny in the tread with Lincoln's head upside down and facing you. If you can see the top of Lincoln's head, you are ready for new tires.

Tire Balance and Wheel Alignment

To avoid vibration or shaking of the vehicle when a tire rotates, the tire must be properly balanced. This balance is achieved by positioning weights on the wheel to counterbalance heavy spots on the wheel-and-tire assembly. A wheel alignment adjusts the angles of the wheels so that they are positioned correctly relative to the vehicle's frame. This adjustment maximizes the life of your tires. These adjustments require special equipment and should be performed by a qualified technician.

Tire Repair

The proper repair of a punctured tire requires a plug for the hole and a patch for the area inside the tire that surrounds the puncture hole. Punctures through the tread can be repaired if they are not too large, but punctures to the sidewall should not be repaired. Tires must be removed from the rim to be properly inspected before being plugged and patched.

Tire Fundamentals

Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides a tire identification number for safety standard certification and in case of a recall.

Information on Passenger Vehicle Tires:

P

The "P" indicates the tire is for passenger vehicles.

Next number

This three-digit number gives the width in millimeters of the tire from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

Next number

This two-digit number, known as the aspect ratio, gives the tire's ratio of height to width. Numbers of 70 or lower indicate a short sidewall for improved steering response and better overall handling on dry pavement.

R

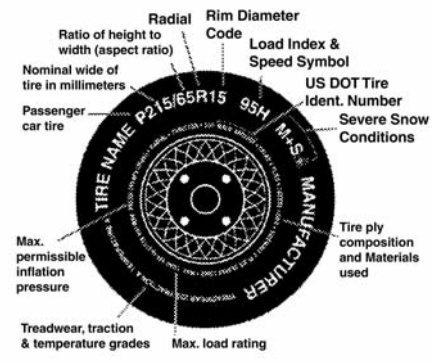
The "R" stands for radial. Radial ply construction of tires has been the industry standard for the past 20 years.

Next number

This two-digit number is the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

Next number

This two- or three-digit number is the tire's load index. It is a measurement of how much weight each tire can support. You may find this information in your owner's manual. If not, contact a local tire dealer. Note: You may not find this information on all tires because it is not required by law.

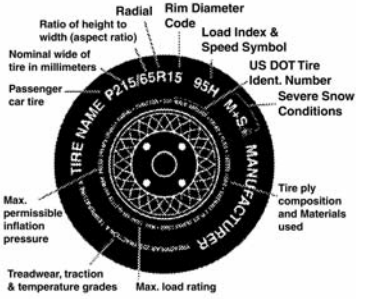


Safety First - Basic Tire Maintenance

Information on Passenger Vehicle Tires:

M+S

The "M+S" or "M/S" indicates that the tire has some mud and snow capability. Most radial tires have these markings; hence, they have some mud and snow capability.



Speed Rating

The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time. The ratings range from 99 miles per hour (mph) to 186 mph. These ratings are listed below. Note: You may not find this information on all tires because it is not required by law.

Letter Rating	Speed Rating
Q	99 mph
R	106 mph
S	112 mph
T	118 mph
U	124 mph
H	130 mph
V	149 mph
W	168* mph
Y	186* mph

* For tires with a maximum speed capability over 149 mph, tire manufacturers sometimes use the letters ZR. For those with a maximum speed capability over 186 mph, tire manufacturers always use the letters ZR.

U.S. DOT Tire Identification Number

This begins with the letters "DOT" and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code where it was manufactured, and the last four numbers represent the week and year the tire was built. For example, the numbers 3197 means the 31st week of 1997. The other numbers are marketing codes used at the manufacturer's discretion. This information is used to contact consumers if a tire defect requires a recall.

Information on Passenger Vehicle Tires:

Tire Ply Composition and Materials Used
The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others.

Maximum Load Rating
This number indicates the maximum load in kilograms and pounds that can be carried by the tire.

Maximum Permissible Inflation Pressure
This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

UTQGS Information:

Treadwear Number
This number indicates the tire's wear rate. The higher the treadwear number is, the longer it should take for the tread to wear down. For example, a tire graded 400 should last twice as long as a tire graded 200.

Traction Letter
This letter indicates a tire's ability to stop on wet pavement. A higher graded tire should allow you to stop your car on wet roads in a shorter distance than a tire with a lower grade. Traction is graded from highest to lowest as "AA","A", "B", and "C".

Temperature Letter
This letter indicates a tire's resistance to heat. The temperature grade is for a tire that is inflated properly and not overloaded. Excessive speed, underinflation or excessive loading, either separately or in combination, can cause heat build-up and possible tire failure. From highest to lowest, a tire's resistance to heat is graded as "A", "B", or "C".

R
The "R" stands for radial. Radial ply construction of tires has been the industry standard for the past 20 years.

Next Number
This two-digit number is the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.

Safety First - Basic Tire Maintenance

UTQGS Information:

Next Number
This two-or three-diget number is the tire's load index. It is a measurement of how much weight each tire can support. You may find this information in your owner's manual. If not, contact a local tire dealer. You may not find this information on all tire's because it is not required by law.

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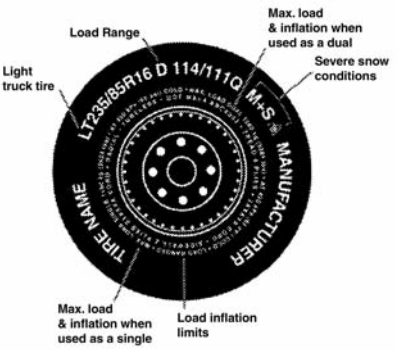
Letter Rating	Speed Rating
Q	99 mph
R	106 mph
S	112 mph
T	118 mph
U	124 mph
H	130 mph
V	149 mph
W	168* mph
Y	186* mph

Additional Information on Light Truck Tires:

Tires for light trucks have other markings besides those found on the sidewalls of passenger tires.

LT
The "LT" indicates the tire is for light trucks or trailers.

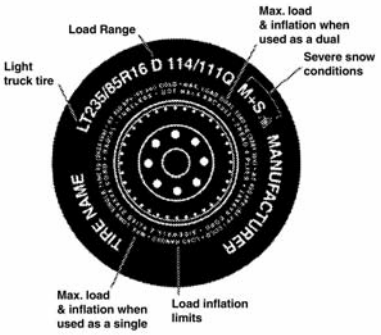
ST
An "ST" is an indication the tire is for trailer use only.



Additional Information on Light Truck Tires:

Max. Load Dual kg (lbs) at kPa (psi) Cold

This information indicates the maximum load and tire pressure when the tire is used as a dual, that is, when four tires are put on each rear axle (a total of six or more tires on the vehicle).


Load Range
Max. load & inflation when used as a dual
Severe snow conditions
Light truck tire
LT235/85R16 D 114/110Q M+S
TIRE NAME
MANUFACTURER
Max. load & inflation when used as a single
Load inflation limits

Max. Load Single kg (lbs) at kPa (psi) Cold

This information indicates the maximum load and tire pressure when the tire is used as a single.

Load Range

This information identifies the tire's load-carrying capabilities and it's inflation limits.

Tire Safety Tips

<u>Preventing Tire Damage</u>

- Slow down if you have to go over a pothole or other object in the road.
- Do not run over curbs or other foreign objects in the roadway, and try not to strike the curb when parking.

Tire Safety Checklist

- Check tire pressure regularly (at least once a month), including the spare.
- Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma.
- Remove bits of glass and foreign objects wedged in the tread.
- Make sure your tire valves have valve caps.
- Check tire pressure before going on a long trip.

Do not overload your vehicle. Check the Tire Information and Loading Placard or User's Manual for the maximum recommended load for the vehicle.

WARNING

Be careful when making inspections, hookups, and repairs to avoid personal injury. Make sure parking brakes are properly activated or that wheel chocks are in place to avoid sudden or unexpected movement of the trailer which could result in bodily injury.

IMPORTANT: It is the Operator's responsibility to conduct a safe and accurate pre-trip inspection of the vehicle including brake condition and proper adjustments and be satisfied that the vehicle is in safe operating condition. See 49 CFR Parts 383 and 396.

Safety Chains

The safety chains should cross behind the coupler and hook individually to the attachment points in the tow vehicle (shown in photo to the left). They **MUST NOT** be attached to the ball.

Coupler Attachment

After hook-up, check for positive engagement of the hitch ball and coupler. Be certain that coupler lock handle is completely engaged before towing the trailer. Also, check to insure that coupler adjustment set screws are torqued to a minumum 125 FT/LBS. (Rev. 4-12)

CAUTION

Do not attach cable to hitch ball. Cable must be attached to the towing vehicle for the proper operation of the vehicle. (A-6462-BO)

Be sure that coupler lock handle is completely engaged before towing trailer. (A-6462-BP)

Coupler bolts must be torqued to a minumum 125 FT/LBS. (Vendor supplied decal) Rev. 4-12

Brake and Electrical Controls

Connect the 6-way plug and check for proper operation of stop lights, turn signals, and running lights. Repair malfunctioning light equipment prior to trip. Check and clean all lights and reflectors. Proper operation requires clean and positive contact between electrical connections. Be sure the plug on the light cable and the trailer connector are free of corrosion. Inspect all wiring to see it is not frayed.

Brake Controls

Check brakes for proper operation before each trip. On trailers with electric or electric/hydraulic brakes, fasten the breakaway switch actuating cable securely to the towing vehicle. Make certain the breakaway battery is fully charged. Your breakaway battery kit contains a tow charger which can keep your battery charged. The charger is hooked to the clearance light circuit and will charge while running lights are being used.

CAUTION

Check battery before towing. Charged battery required for proper operation of the breakaway brake application. (A-6462-BQ)

On trailers with vacuum brakes, drain moisture from the system air tank daily. If the trailer is equipped with hydraulic brakes, check the brake fluid level before each trip.
(Rev. 7-02)

Tires

Check tires frequently for cuts and abrasions. Check air pressure before each trip and keep inflated as recommended by the tire maufacturer. Remove foreign objects that may be lodged in tire treads.

Gates

Before traveling, be sure that all divide gates are locked in either a fully open or fully closed position. All roll-up gates must be closed and ropes secured.

CAUTION

Make certain rollup, swing and half slide gates at the rearend are closed while trailer is being operated or parked.
(A-6462-CD) (Rev. 1-02)

Wheels and Rims

Check all wheel nuts for the proper torque after the first 50 to 100 miles of service and before each succeeding trip. Refer to the torque requirements for the correct procedure and specifications if necessary.

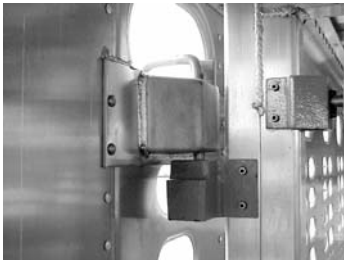
Check all metal surfaces thoroughly while making tire inspections and during tire changes and look for cracks or distortions in the wheel studs. Do not move the trailer when any of these conditions exist. If your axles are equipped with oil lubricated hubs, check the oil level and fill to the required level indicated on the oil cap if necessary.
(Rev. 3-93)

WARNING

Check wheel nuts after initial 50 to 100 miles of service. See Owner's manual for correct torque requirements. Failure to do so may result in equipment damage and personal injury. (A-6891-C)

Insufficient mounting torque can cause wheel shimmy, resulting in damage to parts and extreme tire wear. Excessive mounting torque can cause studs and capnuts to break and discs to crack in stud hole area.

Door Locks



Check all gate locks, access door locks, side door locks, and rear door locks before each trip to insure that they are in proper working order. Any doors, gate locks or keepers which show excessive wear should be replaced immediately. Care should be taken to keep the area around the door frame clear of any debris or animal wastes. A build-up of animal waste may result in more pressure being applied to locks than they were designed to withstand.

CAUTION

Door and gate locks which show excessive wear should be replaced immediately. (A-6462-AW)

Side Structure

Check the trailer sides for inconspicuous damage to the top and bottom rails as well as the side structure. Any problems observed in the side structure should be corrected immediately to prevent the damage from extending futher. Unrepaired damage could affect the safe load carrying capacity of the side structure.

Punched side trailers are built with aluminum side skin. **Do Not** use the holes to hang heavy objects on the side. **Do Not** use the holes to tie animals. This could damage the side skin. Contact Wilson Trailer Company immediately for information on proper support of mounting brackets for such applications.

WARNING

Failure to follow these procedures may result in unnecessary wear and part malfunction. It may also create difficulties with the mechanical operation of the trailer, and, could possibly result in personal injury and/or property damage.

Operation of Brakes

Your trailer brakes are designed to work together with your towing vehicle brakes to stop the combined load. When one does the stopping for both, the overload causes heat build-up which can result in brake wear, a direct loss of braking power and increased brake lining wear.

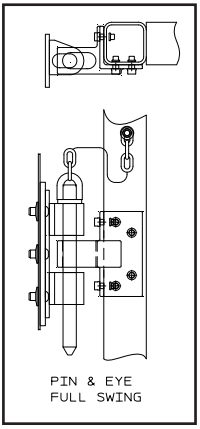
WARNING

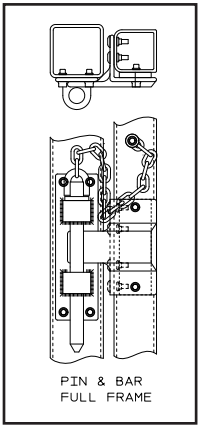
Jack-knifing can occur if the tow vehicle brakes are used alone, allowing the trailer to push the vehicle. This can result in equipment damage and personal injury.

Complete details for making adjustments on or replacement within your braking system can be found in the brake manufacturer's supplement provided with this manual. See Notice: Gooseneck Trailer Brakes. (Page 4-5) Proper synchronization of tow vehicle to trailer braking can only be accomplished by road testing. Follow the instructions found in the manufacturer's supplement for correct synchonization procedures.

Operation of Gates

All divide gates are provided with two locks. Be sure both locks are completely engaged before towing the trailer.





All divide gates with an outside release is provided with an additional pin & eye or pin & bar.

(Rev. 4-12)

WARNING

To prevent personal injury, stand clear of swinging gates until slam locks are engaged. (A-6462-BL) (Rev. 1-02)

Operation of Coupler

The coupler installed on your trailer is of steel pipe design and is adjustable in height to meet different vehicle hitch heights (maximum extension is eight inches). The coupler should be adjusted so that your trailer is level when towed, not nose up or nose down. To adjust the coupler, back towing vehicle under the coupler. Level your trailer using the trailer landing gear, then loosen the two coupler set screws and lower the inner unit over the tow vehicle hitch ball. Tighten the coupler set screws to 125 foot pounds minimum of torque. The coupler is now set to the correct height for your vehicle. (Rev. 4-12)

CAUTION

Be certain that coupler lock handle is completely engaged before towing trailer.
(A-6462-BP) (Rev. 1-02)

Fifth Wheel and King Pin Engagement (If equipped with a King Pin)

After hook-up, check for positive engagement of the lower fifth wheel and king pin. Apply trailer brakes and attempt to move the tractor forward to ensure that the fifth wheel and king pin are positively locked.

CAUTION

Plastic king pin liners (lube plate) cannot be installed on Wilson Trailer Company king pin assemblies. A lube plate changes the king pin interface dimensions of the fifth wheel lock. This may result in coupling difficulties, premature lock wear and, potentially, a dropped trailer.

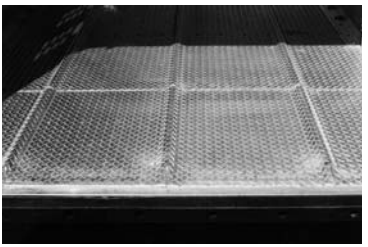
Fastenings

Floors, deck rails, coupler assemblies, and tandem sub-assemblies are attached to the trailer side with zinc plated and stainless steel fasteners.

CAUTION

Each month, check to see that all zinc plated steel fasteners are in place. If any are missing or loose, they should be replaced immediately.

Floor

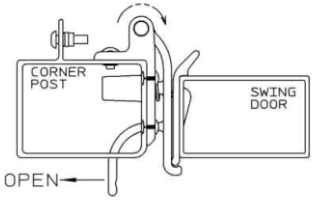


Your Wilson gooseneck trailer is constructed with aluminum treadplate floors to reduce slipping. Never use sand or abrasive materials for animal bedding as this will cause excessive floor wear. The most important part of floor maintenance is cleaning.

Gate and Ramp Hinges

Gate and ramp hinges are provided with grease fittings. They should be lubricated on a regular basis in order to avoid unnecessary wear.

Operating Slam Catch



Rear Slam Catch

Slam catch is not a lock. Make sure lock rod is enaged before moving trailer.

CAUTION

Engage lock rod before moving trailer.

Wheel Bearings

Wheel bearings and cups should be inspected for corrosion or wear every 12 months or 12,000 miles. Bearing adjustment and proper lubrication is essential to the function and reliability of your trailer axles. Please refer to the Dexter Axle "Operations Maintenance Service Manual" for the proper lubricant specifications.

CAUTION **When new bearings are needed, they must always be replaced in sets of a cone and a cup.**

Oil or Grease Seals

7,000 lb Torflex axles are standard with E-Z Lube spindles. This feature allows the bearings to periodically lubricate without removing hubs from the axle. Please refer to the Dexter Axle "Operation Maintenance Service Manual" for additional details.

The 8,000 - 10,000 lb Torflex axles and wheel bearings must be manually lubricated. The bearings and cups should be inspected and/or lubricated every 12 months or 12,000 miles. Please refer to the Dexter Axle "Operation Maintenance Service Manual" for additional details.

Optional Oil Bath Bearings

The oil level should be checked prior to each trip.

IMPORTANT NOTICE - WASHOUT REQUIRED

Feed companies are manufacturing feeds for livestock that produce highly corrosive acids in the animal waste. These animal acids are highly corrosive to aluminum.

Even with the best materials and design, you must wash out your trailer thoroughly as often as possible, or at least once a week to minimize corrosion damage to your trailer. (Rev. 2-93)

NOTICE

Please be aware that staining and discoloration can and may appear on aluminum trailers. This can appear at anytime for various reasons and is beyond the control of Wilson Trailer.

Exposure to cleansers, highway treatment, and de-icing chemicals along with general weather conditions or a combination of the above can be cause for staining and corrosion.

Wilson Trailer is not responsible for these occurrences and any staining or discoloration is not covered by Wilson Trailer warranty.

(Rev. 8-15)

Brakes

See Notice: Gooseneck Trailer Brakes (Page 4-5). Adjust your trailer brakes after the first 200 miles and then after every 3,000 miles or 3 months of use. The brake drum should be inspected every 12 months or 12,000 miles. Inspect the drum surface for excessive wear or heavy scoring. If worn more than .020", oversized drums should be turned. The maximum rebore should not exceed .090".

On trailers with electric brakes, also inspect the inner surface of the brake drum that contacts the brake magnet. If the surface is scored or worn unevenly, it should be refaced by removing not more than .030" of material.

Check the brake magnet for wear and current draw every 6 months or 6,000 miles.

CAUTION

It is important that the wheel bearing bores are not contaminated by metallic chips resulting from drum turning or refacing. Make certain that wheel bearing cavities are clean before reinstalling bearings and seals. The presence of contaminants will cause premature wheel bearing failure.

Brake Adjustment*

NOTICE
GOOSENECK TRAILER BRAKES

- All 7,000 lb axles have automatic forward adjusting brakes.
- Manual adjusting brakes require proper maintenance to prevent problems from developing.
- All 8,000 - 10,000 lb axles have automatic forward adjusting brakes.
- The automatic forward adjusting brakes still require periodic inspection and adjustment as necessary.

Brakes need to be adjusted (1) after the first 200 miles of operation when the brake shoes have "seated", (2) at 3,000 mile intervals, (3) or as use and performance requires. The brakes should be adjusted in the following manner:

1. Jack up trailer and secure on adequate jack stands. Check that the wheel and drum rotate freely.

2. Remove the adjusting hole cover from the adjusting slot on the bottom of the brake backing plate.

3. With a screwdriver or standard adjusting tool, rotate the star wheel of the adjuster assembly to expand the brake drums. Adjust the brake shoes out until the pressure of the linings against the drum make the wheel difficult to turn.

4. Then rotate the star wheel in the opposite direction until the wheel turns freely with a lining drag.

5. Replace the adjusting hole cover and lower the wheel to the ground.

6. Repeat the above procedure on all brakes.

*** This section applicable to trailers equipped with Dexter Axles. Taken from Dexter Axle Service Manual.**

Wheels and Tires

Wheels are a critical component of your running gear system. When replacing the trailer wheels it is critical to match the capacity ratings and to ensure that they are equal or greater than the original equipment supplied by the manufacturer. (Rev. 3-93)

WARNING

Do not attempt to repair or modify a wheel. Even minor modifications can have a great effect. Do not install a tube to correct a leak through the rim. If the rim is cracked, the air pressure in the tube may cause the pieces of the rim to explode with great force and can cause serious injury or death.

Torque Requirements

It is extremely important to apply and maintain proper wheel mounting torque to your trailer axle. Torque is a measure of the amount of tightening applied to a fastener (nut or bolt) and is expressed as length times force. A force of 90 pounds applied at the end of a wrench one foot long will yield 90 foot pounds of torque. Torque wrenches are the best method to assure that the proper amount of torque is being applied to a fastener.

Be sure to use only the fasteners matched to the cone angle of your wheel (usually 60 or 90 degrees).

<u>The proper procedure for attaching your wheels is as follows:</u>

1. Start all bolts or nuts by hand to prevent cross threading.
2. Tighten bolts or nuts in the sequence detailed below.
3. The tightening of the fasteners should be done in stages. Following the recommended sequence, first tighten all the fasteners to 20-25 ft.lb., and finally to the required torque based on the size of the wheel nut (see chart).
4. Wheel nuts/bolts should be torqued before first road use and after each wheel removal. Check and retorque after the first 50-100 miles.

Wheel Nut Torque Guide

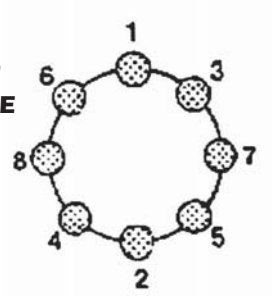
Nut Size	Torque (ft.lbs.)
1/2"-20 (Cone)	90-120
9/16"-18 (Cone)	90-120 Steel
9/16"-18 (Cone)	120-140 Aluminum

(Note 1) 5/8"-18 (Cone) 190-210
5/8"-18 (flanged nut) 275-325 (One-Piece)

(Note 2) 5/8"-18 (flanged nut) 140-160 (Two-Piece)

Note 1: This is when nut is used in conjuction with the reinforcing ring.
Note 2: This two piece flange nut is used on the Alcoa Aluminum Dual wheel application.

TORQUE SEQUENCE



8-BOLT

Breakaway Battery Charger Installation Instructions (for ABCD: Accelerated Battery Charging Device)

IMPORTANT

Check condition of battery prior to installation and prior to each trip.

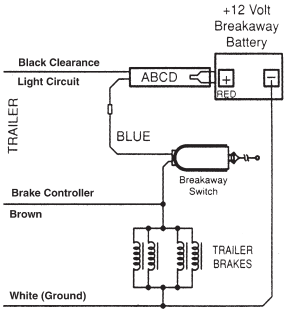
IMPORTANT FACTS TO REMEMBER

1. Improper installation of the breakaway battery will destroy the brake control. The negative terminal must attach to ground and positive terminal must attach to the breakaway switch.

2. Check your breakaway system periodically to insure that wiring and connections are secure. A short or an open circuit can result in a no-brake condition.

3. If excessive discharging of the breakaway battery occurs, check battery and recharge using a Heavy Duty Two Stage/Maintenance Charger. If using a commercial (AC to DC) make certain the 12 volt charge is limited to 1.2 amps or less.

4. The breakaway battery charger is connected to the Clearance Light Circuit. Therefore the breakaway battery charges only when the clearance lights are on. (Rev. 6-02)



Battery Data Chart

- 12 Volt
- P/N 2023-5 amp/hr-max discharge current 20 hr. rate = 250 mA
- Max Discharge Current - 40 amps
- Max charge current must be limited to 1.2 amps
- Length = 3.54"
- Width = 2.76"
- Height = 4.13"
- Weight = 3.8 lbs.
- Terminals: Fasten Tab .187"x.032"
- Service Life: Under normal operating conditions, 4-5 years in standby applications or 200-1000 charge/discharge cycles depending upon depth of discharge and rate of charge.

12 Volt Sealed Lead-Acid Battery (Breakaway Battery)

To maximize the life of the battery the following conditions should be met:

1. Avoid over or undercharge. This is the single worst enemy of lead-acid batteries.

2. Batteries should be stored in a discharged state or at elevated room temperatures.

3. Avoid exposing batteries to heat! Service life is shortened considerably at ambients above 30^{O} C (86^{O}F).

4. Due to the characteristics of this battery, after six to nine months of storage, the battery should be recharged.

5. Charge the battery at the proper rate. Current should be limited to less than 1.2 amps. Charge current above 1.2 amps will result in shortened service life. Ideal charging is provided by Tekonsha Tow Charger, P/N 2024.

6. Provide adequate air circulation when charging battery. **DO NOT** charge battery in any other container besides a TEKONSHA P/N 2018, battery box.

7. **DO NOT PLACE BATTERIES IN CLOSE PROXIMITY TO OBJECTS WHICH CAN PRODUCE SPARKS OR FLAMES**.

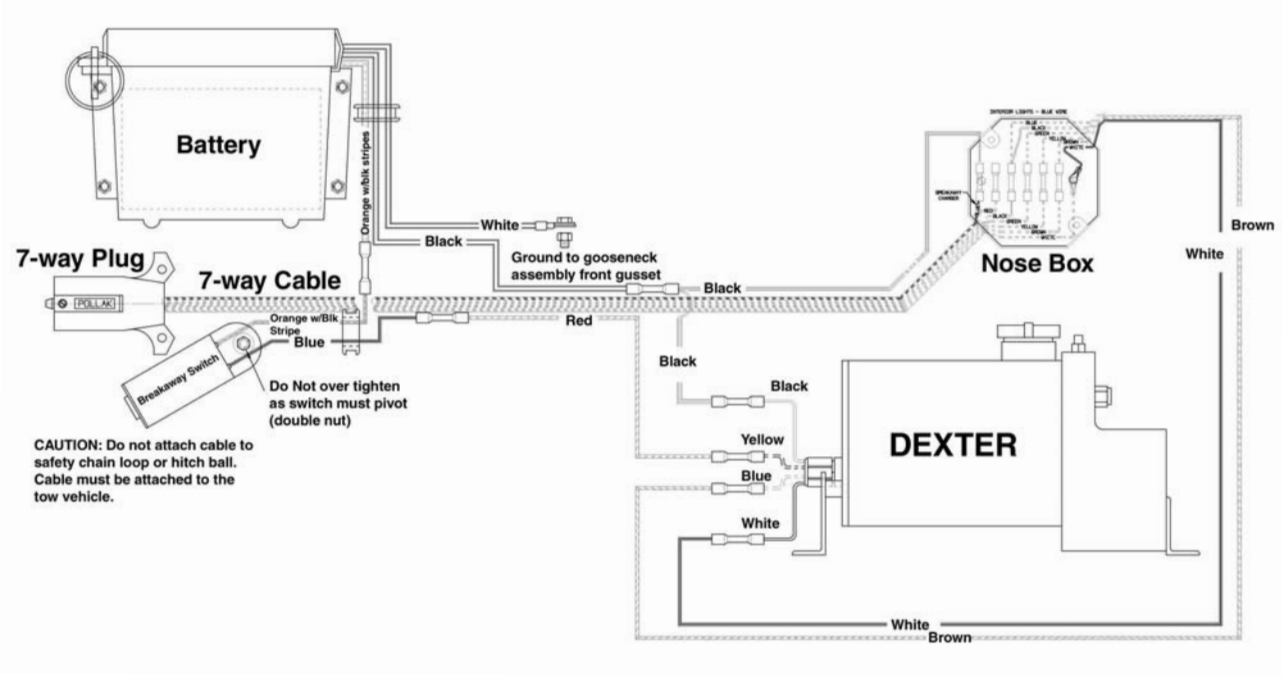
8. Do not expose battery case to organic solvents or adhesives.

9. **DO NOT ATTEMPT TO DISASSEMBLE BATTERIES. CONTACT WITH SULFURIC ACID MAY CAUSE HARM.**

10. **FASTEN BATTERIES TIGHTLY AND MAKE PROVISIONS FOR SHOCK ABSORPTION IF EXPOSURE TO SHOCK OR VIBRATION IS LIKELY.**

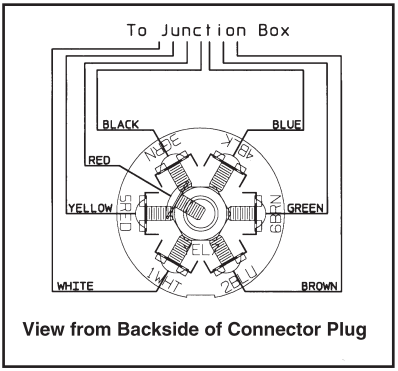
11. Do not throw batteries into fire; batteries so disposed may rupture or explode.

Electrical System



Electrical Connector Wiring Diagram (Standard 7-way RV)

A 7-way plug may be installed on the power cable on your trailer. Each wire carries current from your vehicle's electrical source, through a circuit, to the various electrical devices on the trailer. Individual circuits may be traced by the various wire colors shown on the following wiring diagrams, which show the wire color and the electrical device it serves.

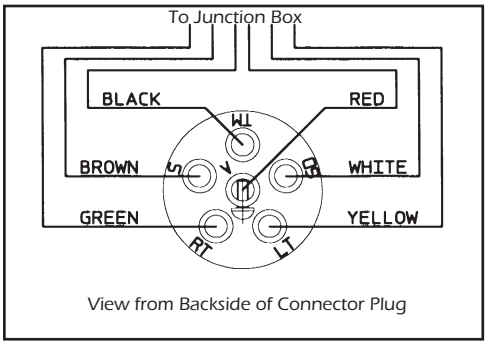


View from Backside of Connector Plug

3GRN = Interior & Exteior Lights (black)
1WHT = Ground (white)
5RED = Left Turn (yellow)
6BRN = Right Turn (green)
2BLU = Electric Brakes ONLY (brown)
YEL7 = Back-up Lights (red) optional
4BLK = AUXILARY (Blue)

Electrical Connector Wiring Diagram (Optional 6-way)

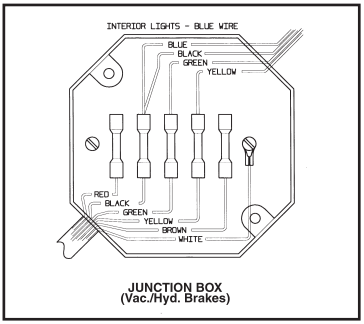
A 6-way plug is attached to the front of the power cable on your trailer. Each wire carries current from your vehicle's electrical source, through a circuit, to the various electrical devices on the trailer. Individual circuits may be traced by the various wire colors shown on the following wiring diagrams, which show the wire color and the electrical device it serves.



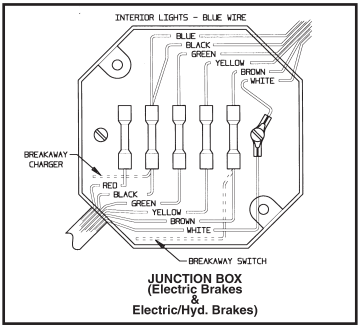
View from Backside of Connector Plug

TM = Interior & Exteior Lights (black)
GD = Ground (white)
LT = Left Turn (yellow)
RT = Right Turn (green)
S = Electric Brakes ONLY (brown)
A = Accessory Back-up Lights (red) optional

Electrical Junction Box

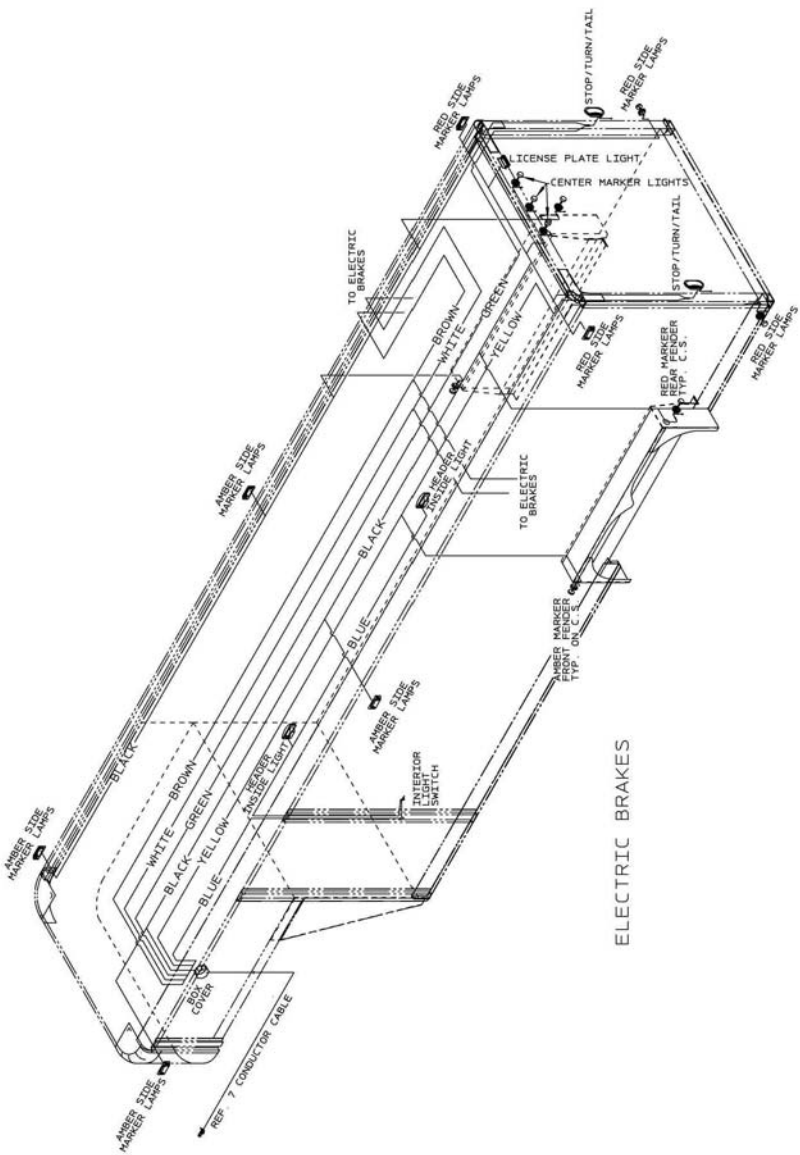


JUNCTION BOX
(Vac./Hyd. Brakes)

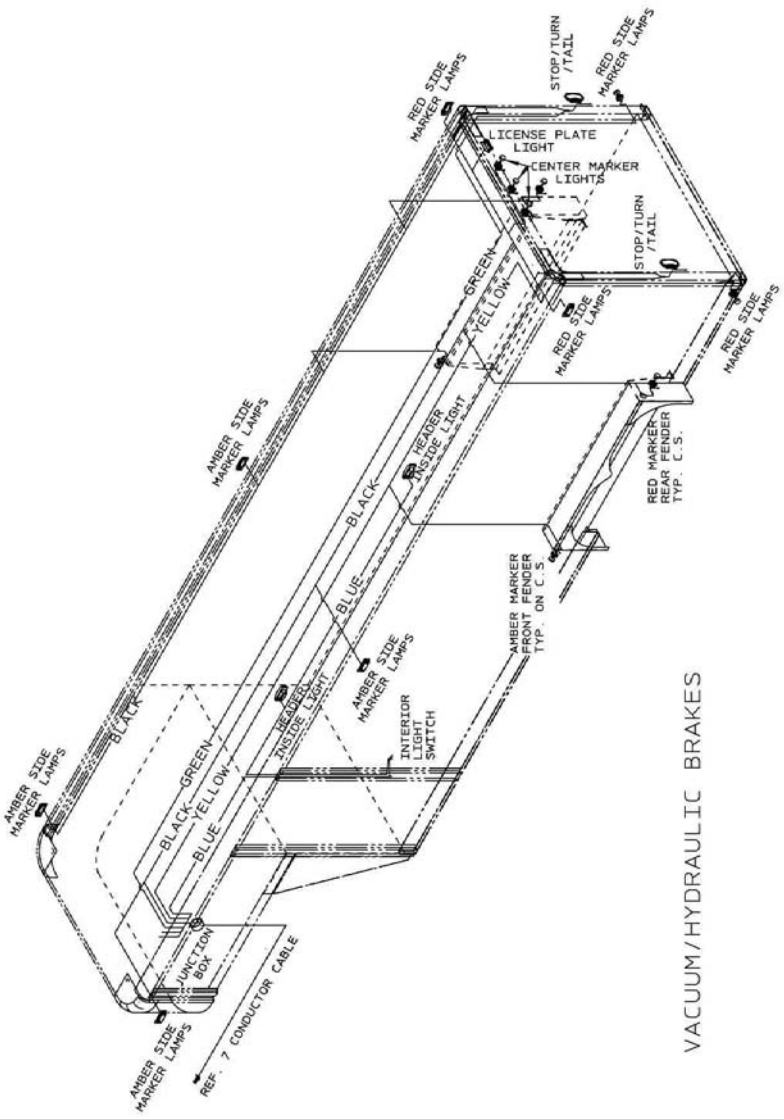


JUNCTION BOX
(Electric Brakes
&
Electric/Hyd. Brakes)

Electric Brakes - Wiring Diagram



Vacuum/Hydraulic Brakes - Wiring Diagram



Electrical Troubleshooting

IMPORTANT NOTICE

Be sure all electrical connections are in a clean and dry location and all connections are complete.

DO NOT cut into the system. Cutting any part of the electrical system will void electrical warranty.

Be sure all electrical connections are greased properly for clean and secure connections.

TOOLS NEEDED:

Flat Screw Driver	Test Light
Black Tape	Wiring Pliers
Wire Connectors	Shrink Tube
Dielectric Grease ONLY	

No Lights

1. Check 6-way plug to see if plugged in.

2. Inspect all lights and connections for power. One light with no power could short out entire system.

3. Trace wire on light with no power back to starting point. Check for bare, pinched, or corroded wires.

(Rev. 1-95)

Dim Lights

1. Check 6-way plug to see if plugged in.

2. Check all grounds. Make sure you have clean grounds.

3. Check for corrosion. Corrosion may occur on wires, connections, lights (bulbs), and light.

Clearance Light Not Working

1. Check for power at 6-way plug.
2. Check for proper ground behind light. Make sure you have a clean ground.
3. Check for corrosion. Corrosion may occur on wires, connections, lights (bulbs), and light.
4. Check for burned out light.
5. Check for unplugged wires. Make sure connections are complete.

Turn Signal (Rear) Not Working

1. Check for power at 6-way plug.
2. Check for proper ground behind light. Make sure you have a clean ground.
3. Check for corrosion. Corrosion may occur on wires, connections, lights (bulbs), and light.
4. Check for unplugged wires. Make sure connections are complete.
5. Check for burned out light.

Stop Light Not Working

1. Check for power at 6-way plug.
2. Check for proper ground behind light. Make sure you have a clean ground.
3. Check for corrosion. Corrosion may occur on wires, connections, lights (bulbs), and light.
4. Check for unplugged wires. Make sure connections are complete.
5. Check for burned out light.

Interior Light Not Working

1. Check for power at 6-way plug.
2. Check for proper ground behind light. Make sure you have a clean ground.
3. Check for corrosion. Corrosion may occur on wires, connections, lights (bulbs), and light.
4. Check for unplugged wires. Make sure connections are complete.
5. Check for burned out light.

License Plate Light Not Working

1. Check for power at 6-way plug.
2. Check for proper ground behind light. Make sure you have a clean ground.
3. Check for corrosion. Corrosion may occur on wires, connections, lights (bulbs), and light.
4. Check for burned out light.
5. Check for unplugged wires. Make sure connections are complete.

Electrical Troubleshooting

Only One Side Working

1. Check all grounds on side not working. Make sure you have a clean ground.

2. Check for damaged or pinched wires.

Lighted Sign Not Working (Optional)

1. Check for power at 6-way plug.

2. Check for proper ground behind light. Make sure you have a clean ground.

3. Check for corrosion. Corrosion may occur on wires, connections, lights (bulbs), and light.

4. Check for unplugged wires. Make sure connections are complete and sealed.

5. Check for burned out light.

Back Up Lights Not Working (Optional)

1. Check 6-way plug. Check connections from 6-way plug all the way to wire that connects to back up lights.

2. Check all grounds connected to back up lights. Make sure you have a clean ground.

3. Check lights. (Rev. 1-95)

Troubleshooting Guide for Vacuum/Hydraulic Brakes

Trailer Brakes Do Not Apply

Malfunction	Corrective Action
a. Slave booster on trailer out of hydraulic fluid	a. Refill reservoir.
b. Excessive air in trailer hydraulic system.	b. Rebleed trailer hydraulic system.
c. Vacuum supply line not connected orcrossed; or vacuum control and supply lines crossed.	c. Reconnect correctly.
d. Slave booster works, but puts out no pressure.	d. Hydraulic piston pushed off push rod in booster, repair or replace booster.
e. Brake pads worn out.	e. Replace brake pads.
f. Combo or relay valve filter clogged with dirt.	f. Clean or install new filter element.
g. Slave booster not functioning.	g. Replace booster.
h. Combo valve not operating properly.	h. Remove and replace
i. Combo valve tied into low pressure side of frame mounted booster.	i. Connect to line from output end of truck booster (line to truck brakes).

Combo Valve Will Not Decrease Vacuum in Control Line When Truck Brakes are Applied

Malfunction	Corrective Action
a. Supply and control reversed.	a. Reverse vaccum line hookup.
b. Combo diaphragm leaking.	b. Remove and replace valve.
c. Restricted or plugged hydraulic line to combo.	c. Replace line.
d. Master cylinder out of hydraulic fluid.	d. Refill.

Trailer Brake Application Lags Behind Application of Brakes on Towing Vehicle.

Malfunction	Corrective Action
a. Booster stroking too far, due to air in trailer hydraulic system.	a. Rebleed trailer hydraulic system.
b. Control line restricted.	b. Remove restriction.
c. Booster mounted too far from relay valve and/or relay valve too far from vacuum tank.	c. Relocate valve to within 3 feet of booster. Relay valve should be mounted on vacuum tank or within 2 feet of tank.

Trailer Brakes Drag After Release.

Malfunction	Corrective Action
a. Breakaway check valve malfunctioning.	a. Replace spring and clean breakaway valve.
b. Hand control partially applied.	b. Release hand control or adjust.
c. Control vacuum line restricted.	c. Remove restriction or relace line.
d. Caliper or wheel cylinder frozen.	d. Repair or replace.
e. Dash or engine check valve missing or not holding vacuum.	e. Clean and check valve or replace with new.
f. Mashed or crimped hydraulic lines on trailer.	f. Replace mashed or crimped section.

Trailer Brakes Drag on Acceleration.

Malfunction	Corrective Action
a. No closed check valve on truck or valve leaking, causing break away check valve to go shut before trailer booster completely releases.	a. Clean or replace engine check valve or clean.
b. Spring too weak in trailer break away valve.	b. Remove check valve, clean, replace spring or open check valve assembly.

Trailer Brakes Will Not Lock Up.

Malfunction	Corrective Action
a. Trailer overloaded.	a. Reduce load carried.
b. Incorrect size combo valve.	b. Install proper size valve.
c. Air in trailer hydraulic system.	c. Rebleed hydraulic system.
d. Booster at maximum stroke.	d. Rebleed hydraulic system or replace booster.
e. Vacuum low.	e. Stop vacuum leak or repair truck engine.
f. Slave booster out of hydraulic fluid.	f. Refill reservoir and check for leaks.
g. Combo valve connected into low pressure side of frame mounted booster.	g. Connect into high pressure side of booster.

Combo Valve Chatters and/or Brake Pedal Surges When Truck Brakes are Applied.

Malfunction	Corrective Action
a. Air not completely eliminated from truck hydraulic system.	a. Rebleed system.
b. Combo valve mounted in such a position that it will not allow bleeding.	b. Remount with hydraulic port up.
c. Dirt under poppet seat of combo valve.	c. Remove and replace valve.
d. Truck booster or hydraulic boost unit faulty.	d. Replace or repair vacuum booster or hydraulic boost.

Trailer Brakes Lock Up and Will Not Release.

Malfunction	Corrective Action
a. No closed check valve on truck or valve not holding, causing trailer break away check valve to lock closed.	a. Clean or replace truck closed check valve.
b. Caliper or wheel cylinder frozen.	b. Repair or replace.
c. Trailer hydraulic lines mashed or crimped.	c. Repair or replace mashed or or crimped section.
d. Hand control on combo valve applied.	d. Release hand control.
e. Combo valve stuck in the applied position.	e. Remove or replace.
f. Vacuum control line broken, disconnected, or plugged	f. Remove line, connect line, or remove restriction.
g. Trailer break away valve spring too weak, causing valve to close as booster tries to release, or valve installed backwards.	g. Replace spring and install open check seat toward booster.

When Trailer Brakes are in Full Application, Truck Brakes Only Partially Apply; or When Truck Brakes are Full Application, the Trailer Brakes Only Partially Apply.

Malfunction	Corrective Action
a. Incorrect size combo valve installed on truck.	a. Remove and replace.
b. Excessive air in trailer brake system would result in partial trailer brake application.	b. Rebleed trailer hydraulic system.

Engine Will Not Reach Normal Vacuum, or it Runs Rough After Combo Valve Installation.

Malfunction	Corrective Action
a. Vacuum leak in truck or trailer vacuum system.	a. Stop leak.
b. Engine out of tune or burned valves.	b. Tune engine valves.
c. Dust plugs not installed in quick couplers.	c. Install plugs.

Trailer Brakes can be Applied with Hand Control But Not with Foot Control.

Malfunction	Corrective Action
a. Incorrect size of combo valve.	a. Replace with proper valve.
b. Combo valve not connected to truck master cylinder.	b. Connect hydraulic line from combo to truck master cylinder.
c. Combo valve not tied into high pressure side of frame mounted booster.	c. Connect into high pressure side.
d. Master cylinder out of hydraulic fluid.	d. Refill master cylinder.

Trailer Brakes can be Applied with Foot Controls But Not with Hand Controls.

Malfunction	Corrective Action
a. Hand control not traveling full stroke.	a. Eliminate restriction. Lever should travel 1-7/8" at pull cable eye.
b. Cable has pulled out of lever on valve.	b. Replace cable.
c. Cable kinked.	c. Replace cable.

Truck System will Not Hold a Vacuum After Engine has Been Stopped.

Malfunction	Corrective Action
a. Dash check valve leaking.	a. Replace check valve.
b. Leak in existing truck vacuum system.	b. Stop leak.
c. Leak in truck trailer vacuum system.	c. Stop leak.
d. Hand control in applied position.	d. Release hand control.
e. Quick couplers leaking.	e. Replace plugs.

Master Cylinder on Towing Vehicle Loses Fluid.

Malfunction	Corrective Action
a. Hydraulic fittings or lines leaking.	a. Tighten and rebleed.
b. Leaking master cylinder on truck.	b. Remove and replace.
c. Caliper or wheel cylinder leaking on truck.	c. Repair or replace.
d. Seal failure in combo valve.	d. Remove and replace.

Troubleshooting Guide for Electric Brakes

Brakes Do Not Apply.

Malfunction	Corrective Action
a. Open circuits.	a. Check all connections and trace circuit for break.
b. Severe under adjustment.	b. Adjust brakes.
c. Faulty controller.	c. Test and correct.
d. Short circuit.	d. Trace circuit for shorts and check ground.

Weak Brakes.

Malfunction	Corrective Action
a. Grease or oil on magnets or linings.	a. Clean or replace.
b. Loose or corroded connections.	b. Clean and correct cause of corrosion.
c. Worn linings or magnets.	c. Replace.
d. Worn brake drums.	d. Machine or replace.
e. Improper synchronization.	e. Re-synchronize.
f. Under adjustment.	f. Adjust brakes.
g. Excessive trailer load.	g. Reduce trailer load.

Locking or Dragging Brakes.

Malfunction	Corrective Action
a. Incorrect adjustment.	a. Adjust brakes.
b. Improper synchronization.	b. Re-synchronize.
c. Faulty controller.	c. Test and correct.
d. Loose, bent or broken brake components.	d. Replace components.
e. Out of round brake drums.	e. Machine or replace.
f. Faulty break away switch.	f. Repair or replace.
g. Loose or worn wheel bearings.	g. Replace bearings and examine hub.

Intermittent or Surging Brakes.

Malfunction	Corrective Action
a. Faulty controller.	a. Test and correct.
b. Loose wire connections.	b. Check all connections.
c. Shorts in wiring.	c. Trace and repair wiring.
d. Improper ground.	d. Check ground. Do not replace through hitch.
e. Broken magnet leads.	e. Check magnets and replace if necessary.
f. Out of round drums.	f. Machine or replace.
g. Loose wheel bearings.	g. Check and adjust bearings.

Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA), in addition to notifying Wilson Trailer Company.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Wilson Trailer Company.

To contact NHSTA, you may call the Vehicle Safety Hotline toll-free 888-327-4236 (TTY: 1-800-424-9153); go to http://www.safercar.gov: or write to: Administrator, NHTSA, 1200 New Jersey Avenue S.E., Washington DC 20590. You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

(Rev. 8-08)

Keep Informed

All information contained in this manual, including illustrations, dimensions, and specifications are based on the latest product information available at the time of publication approval.

Changes are being made continually to improve the product. The right is reserved to make changes in materials, equipment, design, specifications, and models, and to discontinue models without additional notice or obligations.

Keep informed about continued product changes by remaining in contact with a Wilson Trailer Company authorized gooseneck representative on a regular basis.

Customer Assistance

When it comes to service, repair and parts, remember that your Wilson Trailer Company authorized gooseneck representative knows your vehicle best. Contact him to help you with these matters. He is sincerely interested in seeing that your trailer needs are completely satisfied.

If you need help in locating the Wilson Trailer Company authorized gooseneck representative nearest you, call us at 800-798-2002 and ask for Dealer Information Services.

If you are looking for the nearest Wilson repair facility refer to the following **Authorized Repair Facility** list.

Authorized Repair Facilities

Utility Trailer Sales of Alabama			Dean Allen
2800 Pinson Valley Parkway			Ph #205-849-7418
PO Box 170698			Fax #205-841-8417
Birmingham	AL	35217	
Utility Trailer Sales of Alabama			Earl Dollar
522 Ross Clark Circle			Ph #334-794-7345
Dothan	AL	36303	Fax #334-794-1728
Arkansas Trailer			Mike Lauderdale
3200 South Elm St.			Ph #800-666-5417
Little Rock	AR	72204	Fax #501-686-1787
Ater Warehouse			Jeremy
3235 Hwy 49 West			Ph #870-572-1717
West Helena	AR	72390	Fax #870-572-5212
Liberty Trailer Company			Buddy Whitfield
10120 Hwy 70			Ph #501-945-7679
North Little Rock	AR	72117	Fax #501-945-7699
Utility Trailer Sales Arizona			Russ Kline
1402 North 22nd Ave.			Ph #602-254-7213
Phoenix	AZ	85009	Fax #602-271-4128
Utility Trlr Sales Co of Arizona			Katie Schwartz
751 E 48th St PO Box 7215			Ph #520-884-5959
Tucson	AZ	85725	Fax #520-622-0703
D C Trailer Repair			David Clark
11601 Santa Fa Ave E			Ph #760-956-9643
Hesperia	CA	92345	Fax #760-956-9605
The Trailer Company			Joe Huberty
234 Mt. Vernon Ave			Ph #661-324-7377
Bakersfield	CA	93307	Fax #661-324-3984
California Custom Trailers			GOOSENECK ONLY
10391 E Stockton Blvd.			Ph #800-524-3689
Elk Grove	CA	95624	Fax #916-714-7995
Andres Trailer Sales & Rentals Inc.			
4 Miles East of Lethbridge on Hwy 3			Jim Dudas
RR 8 Site 32 Comp 52			Ph #403-328-8434
Lethbridge, Alberta	CN	T1J 4P4	Fax #403-329-3460
Ocean Trailer			Rick Featherstone
7288 84th Street SE			Ph #403-720-7100
Calgary, Alberta	CN	T2C 3W5	Fax #403-720-5794
Ocean Trailer			Pete Parsons
15205 - 131th Ave			Ph #780-447-7373
Edmonton, Alberta	CN	T5V 0A4	Fax #780-447-7377
Ocean Trailer			Brian Mann
9076 River Road			Ph #604-940-0210
Delta, BC	CN	V4G 1B5	Fax #604-940-0610

Ocean Trailer			Brad Martens
415 Lucas Ave.			Ph #204-940-7364
Winnipeg, Manitoba	CN	R3C 2E6	Fax #204-940-7360
Trans East Trailer LTD			Jim Mullett
368 Urquhart Ave.			Ph #877-854-2225
Moncton, NB	CN	E1H 2R6	Fax #506-854-2353
Trailers Canada			Steve Walda
5185 Fountain Street			Ph #519-648-2273
Breslau, Ontario	CN	N0B 1M0	Fax #519-648-3631
Trans East Trailer LTD			Andrew Black
821 Cumberland Ave.			Ph #800-361-0529
Burlington, Ontario	CN	L7N 3J7	Fax #905-331-4510
Ulch Trailer Sales LTD.			Steve Ulch/Steve Coward
RR1 1719 Road 164			Steve Obrien
Kirkton, Ontario	CN	N0K 1K0	Ph #519-229-6827
			Fax #519-229-8938
Select Trailer Sales (East)			Mike Thomas
6145 Nertherhart Road			Ph #905-696-9762
Mississauga, Ontario	CN	L5T 1G5	Fax #905-696-9805
Golden West Trailer Sales			Andrew Nagel
1802 Stadacona St West			Ph #306-692-7402
Moose Jaw, Sask.	CN	S6H 4N8	Fax #306-694-0607
Beck's Trailer Repair			Troy
22080 Hwy 34			Ph #970-542-2325
Fort Morgan	CO	80701	Fax #970-542-2700
Trailer Service Inc.			Dick or Kay Hinchliff
5200 E 78th Ave			Ph #303-295-7556
Commerce City	CO	80022	Fax #303-292-3856
Colt Western Leasing			Mike Hradecky
515 East Chestnut, PO Box 529			Ph #970-522-4830
Sterling	CO	80751	Fax #970-522-2216
Utility/Eastern Shore			Curtis Bell
US Hwy 13 & County Rd 40			Ph #302-337-7400
Bridgeville	DE	19933	Fax #302-337-7554
JCS Enterprises			L. Holley
4390 Old McDonough			Ph #404-608-0890
Conley	GA	30027	Fax # None
Olsen's Outdoor Power			GOOSENECK ONLY
2800 E 7th Street			Ph #800-383-4108
Atlantic	IA	50022	
Central Trailer Service, LTD			Randy Frisk
316 Adventureland Drive			Ph #800-288-3032
Altoona	IA	50009	Fax #515-957-0301
Des Moines - Jim Hawk			Kevin Ranard
3515 Adventureland Dr			Ph #515-967-3800
PO Box 217			Fax #515-967-0284
Altoona	IA	50009	
Seegers Truck & Trailer			John
1125 - 66th Ave SW			Ph #319-363-5581
Cedar Rapids	IA	52404	Fax #319-363-9435

Authorized Repair Facilities

Jim Hawk Council Bluffs			Randy Wilson
3119 S 9th St			Ph #712-366-2241
Council Bluffs	IA	51501	Fax #712-366-3441
Whitehill Trailer			Virgil Whitehill
251 - 29th Ave.			Ph #712-325-0408
Council Bluffs	IA	51503	Fax #712-325-0422
Jim Hawk Trk & Trailer			Brad Robinson
900 W 76th St			Ph #563-386-2990
Davenport	IA	52806	Fax #563-386-2982
Stock Trailer City			GOOSENECK ONLY
144 North 7th Street			Ph #712-263-5824
Denison	IA	51442	Fax #712-252-9862
Buckshot Repair			Chad Meyer
1400 Poplar Street			Ph #319-342-3192
La Porte City	IA	50651	Fax #319-342-2742
Lahr Repair Inc.			Greg Lahr
2113 Hwy 38			Ph #563-927-8106
Manchester	IA	52057	Fax #563-927-9537
Dave's Diesel			Dave
27901 - 620th St			Ph #712-469-2777
Manson	IA	50563	Fax #712-469-3017
Curry's R.D. Truck & Trailer Repair			Duane Hook
4200 Hwy 61 South			Ph #563-263-4100
Muscatine	IA	52761	Fax #563-263-4101
Carroll Distributing Trailer			GOOSENECK ONLY
205 South Iowa Ave			Ph #641-684-4052
Ottumwa	IA	52501	Fax #641-684-4622
Avalon Service Center Inc.			GOOSENECK ONLY
20756 Hwy 52 N			Ph #800-866-1552
Rickardsville	IA	52039	Fax #563-552-1555
Hitches Trailers & More			GOOSENECK ONLY
3404 Hwy 75 North			Ph #800-478-1660
Sioux City	IA	51106	Fax #712-252-9862
Wilson Trailer Company - Parts			
2400 Leech Ave.			Ph #800-728-5334
Sioux City	IA	51106	
Wilson Trailer Company - Service			Bob Hickson
2400 Leech Ave.			Ph #800-397-5331
Sioux City	IA	51106	
Wilson Trailer Company - Warranty			
4400 So. Lewis Blvd.			Ph #800-798-2002
Sioux City	IA	51106	
R & R Services Inc.			Ron Tipton - Service Mg
4125 S Eagleson Road			Ph #208-362-7510
Boise	ID	83705	Fax #208-362-7514

Utility Trailer Sales of Idaho Falls			Ed Frostman
4306 West Andco Drive			Ph #208-552-0575
Idaho Falls	ID	83402-0127	Fax #208-552-0619
Wagner Transportation Co			Bruce Major
410 Locust St N PO Box 192			Ph #208-733-7671
Twin Falls	ID	83301	Fax #208-733-9262
Jim Hawk Truck Trailers Inc.			Adam Rusk
4001 Main			Ph #800-421-6559
East Peoria	IL	61611	Fax #309-694-0036
Blue Line Shop Service			Jerrold Haas
12096 N 2400 East Road			Ph #815-692-2210
Fairbury	IL	61739	Fax #815-692-6603
Freeport Metal Specialites Co			Dan McWorthy
1552 Illinois RT 75 E			Ph #815-235-9835
Freeport	IL	61032	Fax #815-235-4816
Eastland Fabrication			Mike Sweitzer
14273 ILL Route 73			Ph #815-493-8399
Lanark	IL	61046	Fax #815-493-8499
Illinois Frame, Inc.			Tim Kennedy
496 East Route 34			Ph #815-539-5033
Mendota	IL	61342	Fax #815-539-9664
Spaeth Welding			Marvin Spaeth
321 W Missouri			Ph #618-588-3596
New Baden	IL	62265	Fax #618-588-3824
Hiel Enterprises			Danny Mahr
22842 IL Hwy 41 PO Box 110			Ph #309-775-3333
Prairie City	IL	61470	Fax #309-775-3336
K C M Truck & Repair			John Anderson
225 W Courtland St			Ph #309-263-4644
Morton	IL	61550	Fax #309-263-4880
Thermo King Quad Cities			Al Chandler
3900 - 81st Ave. West			Ph #309-787-6177
Rock Island	IL	61201	Fax #309-787-8393
Springfield Trlr			Jim Weekly
3370 Singer Ave			Ph #217-789-2673
Springfield	IL	62702	Fax #217-789-2686
Schwarze Trailer Repair, Inc			Karen Schwarze
5925 State Route 3			Ph #618-458-7706
Waterloo	IL	62298	
WTS Indiana			Eric Clanton
417 Ransdell Road			Ph #765-482-4684
Lebanon	IN	46052	Fax #765-485-0195
Wilson Trailer Sales of Kansas			Shawn Barnes
2730 East Trail St PO Box 297			Ph #620-225-6220
Dodge City	KS	68701	Fax #620-227-8627
Double "O" Trailer Service Inc.			Sid Wells
225 E 19th Street			Ph #859-987-4200
Paris	KY	40361	Fax #859-987-4247

Authorized Repair Facilities

Ater Warehouse, Inc			Kris Foreman
6554 Hwy 84 E PO Box 906			Ph #318-757-4128
Ferriday	LA	71334	Fax #318-757-2726
Hudsonville Truck & Trlr Serv Co			Mark Duimstra
3308 Hudson Trail Drive			Ph #616-896-8900
Hudsonville	MI	49426	Fax #616-896-8067
Lum Hughston Trucking LLC			GOOSENECK ONLY
3701 W Stoney Corners Rd			Ph #231-825-2424
PO Box 36			Fax #231-825-2449
McBain	MI	49657	
Scientific Brake & Equipment Co.			Al Schreur
314 W. Genesee Avenue			Ph #800-292-0235
Saginaw	MI	48602	Fax #
Albert Lea Trailer Repair			Wayne Borneman
2101 Consul			Ph #507-377-1671
Albert Lea	MN	56007	Fax #507-373-2713
Ironside Trailer Sales Inc			GOOSENECK ONLY
345 2nd Ave NW			Ph #507-886-4600
PO Box 273			Fax #507-886-4602
Harmony	MN	55939	
Wilson Trailer Sales of MN			Gary Pilaczynski
Hwy 14 E PO Box 337			Ph #507-752-7833
Lamberton	MN	56152	Fax #507-752-7379
Wilson Trailer Sales of MN			Kurt Aarons
1294 N River Dr PO Box 1996			Ph #507-388-2907
Mankato	MN	56001	Fax #507-625-6013
Stenberg's Supply			GOOSENECK ONLY
32530 US 10			Ph #218-352-6598
Motley	MN	56466	Fax #218-352-6309
Arena Trailer Sales			GOOSENECK ONLY
28195 Harry Ave			Ph #507-263-4488
Randolph	MN	55065	Fax #507-263-4225
Dahlberg Sales Inc			GOOSENECK ONLY
East Hwy 12			Ph #320-235-4180
PO Box 203			Fax #320-235-4180
Willmar	MN	56201	
Mo-Kan Trailer Sales			GOOSENECK ONLY
13196 State Hwy 171			Ph #417-642-5852
Asbury	MO	64832	Fax #417-642-5853
Joplin Trailer Inc			Joe Sullenger
2430 Davis Blvd.			Ph #417-782-2702
Joplin	MO	64804	Fax #417-782-8613
Trailer Connection			Dwight Payton
5408 Hwy 43			Ph #417-659-9999
Joplin	MO	64804	Fax #417-659-8020

Jim Hawk Truck Trailers/Kansas			Bruce Siders/Lonnie
7500 NE Gardner Ave			Ph #800-224-5045
Kansas City	MO	64120	Fax #816-241-2380
King City Motors			GOOSENECK ONLY
110 S Connecticut			Ph #660-535-4814
PO Box 506			Fax #660-535-4823
King City	MO	64463	
Martens Trailer Sales			GOOSENECK ONLY
25043 Dogwood Lane			Ph #660-665-2660
PO Box 609			Fax #660-665-2660
Kirksville	MO	63501	
Lawrence Trailer Rebuilders			Don Lawrence
321 E 3rd St			Ph #573-564-3791
Montgomery City	MO	63361	Fax #573-564-3792
Evans Trailer & Equipment Inc			GOOSENECK ONLY
8575 E Hwy 60			Ph #866-387-0433
Rogersville	MO	65742	Fax #417-753-7260
Springfield Trailer Service			Shawn Lacey
2929 E Blaine			Ph #417-864-8511
Springfield	MO	65803	Fax #417-864-6424
Utility Trailers			Jimmy Thompson
345 Hwy 495			Ph #800-844-9100
Richland	MS	39218	Fax #601-932-7037
KR Rauch Company			Kevin Rauch
1705 Old Hardin Road			Ph #406-259-2053
Billings	MT	59101	Fax #406-259-4587
C.R.T.S. Inc.			Steve Eger
3301 Integrity Drive			Ph #800-662-7026
Garner	NC	27529	Fax #919-773-4008
C.R.S.T. Inc			Jerry Wright
2956 Amity Hill Road			Ph #877-754-4329
Statesville	NC	28677	Fax #704-838-1709
Wilson Trailer Sales & Service			Bud Futch
1825 Thorne Ave PO Box 3637			Ph #252-237-6186
Wilson	NC	27893	Fax #252-237-4145
Johnsen Trailer Sales			Roger Johnsen
2100 Industrial Dr PO Box 1562			Ph #701-255-0480
Bismarck	ND	58502	Fax #701-255-3991
Johnsen Trailer Sales			Robbie Fetsch
3631 - 38th St PO Box 9493			Ph #701-282-3790
Fargo	ND	58106	Fax #701-282-3593
Napoleon Oil			GOOSENECK ONLY
102 Broadway			Ph #701-754-2684
PO Box 237			
Napoleon	ND	58561	
Wilson Trailer/Grand Island			Scott Lamb
2314 E Hwy 30 PO Box 2421			Ph #308-381-1800
Grand Island	NE	68802	Fax #308-381-4845

Authorized Repair Facilities

Cow Country Sales and Service LLC			GOOSENECK ONLY
902 West Hwy 2			Ph #877-450-2356
Box 200			Fax #308-458-2591
Hyannis	NE	69350	
Northwest Nebraska Tire			GOOSENECK ONLY
54603 Hwy 20			Ph #800748-3514
PO Box 28			Fax #402-748-3316
Osmond	NE	68765	
Ship's Cycle			GOOSENECK ONLY
1375 Mountain City Hwy			Ph #888-860-8171
Elko	NV	89801	Fax #509-837-2346
E & R Trailer Sales & Service			Jason Will
20186 LIncoln Hwy			Ph #419-968-2115
Middle Point OH	45863		Fax #419-968-2712
Fullenkamps Frenchtown			GOOSENECK ONLY
11465 Mangen Rd			Ph #866-217-7440
Varsailles	OH	45380	Fax #937-526-9120
Wilson Trailer / Oklahoma		Ronnie Burnside	
14100 So. Meridan			Ph #800-522-9919
Oklahoma City	OK	73173	Fax #405-691-4932
Pacific Truck & Trailer			Todd Singleton
4826 Monument Dr			Ph #541-471-4450
Grants Pass	OR	97526	Fax #541-471-4452
EMM Sales & Service Inc.			Kevin Wimer
141 Zooks Mill Road			Ph #800-288-2081
Brownstown PA	17508	Fax #717-859-3294	
Carl's Trailer Sales Inc			GOOSENECK ONLY
10958 US Hwy 212			Ph #800-861-4032
PO Box 98			Fax #605-892-4272
Belle Fourche	SD	57717	
M & J Auto Inc			GOOSENECK ONLY
121 West Hwy 18			Ph #605-835-9909
PO Box 308			Fax #605-835-9908
Gregory	SD	57533	
Pioneer Garage Inc			GOOSENECK ONLY
525 Commerical Ave NE			Ph #800-666-5176
PO Box 129			Fax #605-852-2795
Highmore	SD	57345	
A-Bar-K Trailer Sales			GOOSENECK ONLY
1003 E Rice Street			Ph #605-335-8934
Sioux Falls	SD	57103	Fax #605-335-3091
Crossroads Trailer			Chuck Bagley
4801 N. National Ave			Ph #605-334-3033
Sioux Falls	SD	57104	Fax #605-334-6241
Larson Truck Sales Inc			Vern Feekes
27115 Parklane Drive			Ph #605-368-5217
Sioux Falls	SD	57106	Fax #605-368-2199
Schuchards Westside GMC Truck			GOOSENECK ONLY
1800 9th Ave SW			Ph #800-526-0078
PO Box 1506		Fax #605-886-8055	
Watertown	SD	57201	
Transport Parts Inc			Ken Carter
3370 Fontaine Road			Ph #901-396-3615
Memphis	TN	38116	Fax #901-396-1375

Trailer Sales of Tennessee Inc 414 Woodycrest Ave PO Box 100894 Nashville	 TN	 37224	Raymond Estes Ph #615-259-3301 Fax #615-726-2369	
American Equipment & Trailer Inc 610 N Grand PO Box 32190 Amarillo	 TX	 79120	DeWight Stewart Ph #806-383-8831 Fax #806-383-0662	
American Equipment & Trailer Inc 3707 Martin Luther King Blvd PO Box 2010 Lubbock	 TX	 79404	Danny Jones Ph #806-747-2991 Fax #806-747-3715	
S & W Trailer Service 4803 Emil Road San Antonio TX	 78219		Gene Carrion Ph #210-661-4691 Fax #210-666-0975	
Poulsen Trailer Sales Inc 2900 S Hwy 89-91 Logan	 UT	 84321	GOOSENECK ONLY Ph #800-752-5636 Fax #435-753-8835	
Allstate Truck & Trailer 35 N 700 W North Salt Lake City	 UT	 84054	Tony Martinez Ph #801-936-1811 Fax #801-936-2754	
Meade Tractor Company 19209 Lee Hwy PO Box 2497 Abingdon	 VA	 24212	GOOSENECK ONLY Ph #800-245-2024 Fax #276-628-9231	
Utility Trailer Sales of Virginia Division of C.R.T.S. Inc. 711 North Washington Hwy Ashland	 VA	 23005	John Eddy Ph #800-443-5254 Fax #804-798-2685	
Utility Trailers Sales of Virginia Division of C.R.T.S. Inc. 146 Simmons Drive Cloverdale	 VA	 24077	 Ph #877-992-9850 Fax #540-992-2878	
Freedom Truck Centers, Inc. 10310 Westbow Spokane	 WA	 99224	Allen Feider Ph #509-744-0390 Fax #509-363-3109	
Northwest Trailer Center 6518 E Dean Spokane	 WA	 99212	Craig Stelling Ph #509-535-3007 Fax #509-535-2017	
Leland Trailer Equipment N 616 Lake Road PO Box 11217 Spokane	 WA	 99211	Darryl Heath Ph #509-535-0291 Fax #509-535-0294	
Northwest Trailer Center 6518 E Dean Spokane	 WA	 99212	Craig Stelling Ph #509-535-3007 Fax #509-535-2017	
Freedom Truck Centers, Inc. 1901 Rudkin Road Union Gap	 WA	 98903	Mike Hubbard Ph #509-248-3718 800-378-9478	Fax #509-575-1255
Precision Repair & Accessories 2101 Center Drive Darlington	 WI	 53530	Ron Ray Ph #608-776-8789 Fax #608-776-3838	
Trudell Sales of Green Bay Hwy 41 & 2049 Creamery Road DePere	 WI	Jeff Hendzel 54115	 Ph #920-336-0601 Fax #920-336-1881	
Badger Utility Inc of Wisconsin 4334 Daentel Road DeForest	 WI	 53532	Dale Sturdevart Ph #800-362-7370 Fax #608-249-5301	
Kieler Service Center 3722 Contractor Lane Kieler	 WI	 53812	Brian Hartl Ph #608-568-7265 Fax #608-568-3229	

Foreman Ranch Hand Roper Stampede

Certificate of Limited Warranty

The following warranty is given to the owner of each new Wilson trailer sold by Wilson Trailer Company or its authorized dealers in the United States and Canada during the period of time and upon the conditions set out in the Extended Warranty Schedule.

Warranty Coverage

Wilson Trailer Company will repair or replace, at its option, any factory-installed part that is defective in material or factory workmanship under normal use, maintenance and service. Normal use excludes any operation in excess of GVWR (gross vehicle weight rating) and any use the Owner's Manual states is not recommended. Warranty repairs will be made and adjusted in accordance with the Extended Warranty Schedule as it appears on the following page. Any repaired or replaced parts are covered only for the remainder of this warranty. All parts replaced under this warranty become the property of Wilson Trailer Company.

This warranty begins on the date the trailer is delivered to the first retail purchaser or the date it is first placed into service as a demonstrator or leased trailer, whichever comes first.

The warranty registration must be completed and returned to Wilson Trailer Company within 14 days after the day the trailer is delivered to the owner. Failure to return the warranty registration to Wilson Trailer Company within the specified time will void the warranty.

This coverage applies only to Gooseneck trailers from 16' - 32' belly floor lengths with GVWR of 25,000 pounds or less. The trailers must be towed by trucks rated at no greater than a 2 ton rating. Use of tow vehicles other than specified voids all warranty.

Non-coverage Items

This warranty does not cover the following items:

- Tires.
- Axles, wheels, tires, suspension, trailer frame and other components and structure damaged through the use of single axle dump valves.
- Non-standard features or items specified by the purchaser.
- Parts that fail due to lack of required maintenance or use of non-equivalent parts.
- Normal wear or deterioration on any part.
- Any trailer normally driven outside the United States or Canada.
- The replacement of expendable maintenance items when the replacement is not due to a defect in material or factory workmanship.

To Get Warranty Service

Parts claimed to be defective in material or workmanship must be brought to the attention of Wilson Trailer Company or the selling dealer by taking the trailer to the dealer or by written notification within ten (10) days of discovery, and any repairs or replacement must be commenced within forty-five (45) days thereafter. Wilson Trailer Company has the right to inspect the claimed defect and determine whether the part is covered by this warranty. If you cannot get warranty service, or you are dissatisfied with the service or with a warranty decision, contact Technical Service and Claims Manager, Wilson Trailer Company, P.O. Box 6300, Sioux City, IA 51106.

Owner's Responsibility

As the owner of this trailer, you have the responsibility to perform the required maintenance at the proper intervals and make reasonable and normal use of the trailer.

Limitations and Disclaimers

Wilson Trailer Company disclaims any responsibility for any loss of time or use of the parts or trailers in which the parts are installed, transportation, cargo loss, or other incidental or consequential damage. Any implied warranties, including the implied warranty of merchantability and fitness for a particular purpose, are limited to the duration of this written warranty. Wilson Trailer Company makes no warranty as to quality or performance of its trailer other than set forth above.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you special legal rights, and you may also have other rights which vary from state to state.

Extended Warranty Schedule

Per Written Warranty Conditions Covering Defect in Material and Workmanship as to Construction and Assembly and Installation Only

Use Vendor's warranty schedule for:	Axles Hubs & Drums Electric Brake Components Hydraulic Brake Components Wheels Ball Type Couplers 5th Wheel Couplers
Contact Local Tire Representative for:	Tires

NOTE

% Allowable to owner (from date in service to original purchaser) for Material and Labor excluding component parts and accessories.

1 - 60 Months (100%)	Bottom Rail Floor Crossbars Roof Header Roof Bows Undercarriage Assemblies
1 - 12 Months (100%)	Side Panels Metal Flooring Front Assembly Rear Assembly Metal Doors Metal Gates Metal Roof Skin Lights and Wiring

This warranty shall not apply from owner operation exceeding GVWR rating of the trailer.

Wilson Trailer Company

Vendor Warranties for PSGN (08/01/2012)

CARLISLE WHEELS		
Structural	Lifetime	100% Parts ONLY
Coatings	90 days	100% Parts ONLY
Out of round or bent lip	1-24 months	100% Parts ONLY
DEXTER AXLE		
Torflex	1-60 months	100% Parts & Labor
Bearings for Torflex	1-24 months	100% Parts & Labor
Spring	1-24 months	100% Parts & Labor
DEXTER HUB & DRUMS	1-12 months	100% Parts & Labor
DEXTER BRAKE COMPONENTS	1-12 months	100% Parts & Labor
DEXTER WHEELS	1-12 months	100% Parts & Labor
GROTE LIGHTS	120 months/original owner/ Parts ONLY	

ALL GROTE LIGHT WARRANTY MUST BE RUN THROUGH GROTE DIRECT, NOT WILSON TRAILER AT 1-800-628-0809 Ext. 300 CUSTOMER SERVICE.

REDLINE VAC OVER HYDRAULIC BRAKES	1-12 months	100% Parts & Labor
REDLINE AIR OVER HYDRAULIC BRAKES	1-12 months	100% Parts & Labor
DEXTER ELECTRIC/HYDRAULIC BRAKES		
Brake Actuators	1-24 months	100% Parts ONLY
BALL TYPE COUPLER (Gooseneck Coupler)	1-12 months	100% Parts & Labor
REDNECK (Bulldog Brand)	1-60 months	100% Parts ONLY
BINKLEY JACK STAND	1-24 months 25-60 months	100% Parts & Labor 100% Parts

Read, Understand, Follow and Save These Instructions

- Read, understand and follow all instructions before installing and using this product. Never allow anyone unfamiliar with these instructions to use this product.
- Read, understand and follow all instructions provided by the manufacturer of the product(s) on which this product will be installed.
- Installation of this product must conform to the following mounting instructions.
- Save these instsrtuctions for use as a reference in the future.

WARNING

Failure to follow these warnings and instructions may result in property damage, serious bodily injury, and/or death.

- Purchaser/owner must ensure that product is installed according to these instructions.
- Purchaser/owner must not alter or modify the product.
- Operator and bystanders should never position any body part under any portion of this product or the load being supported.
- Do Not allow children to play on or around this product or the load being supported.
- Weigh your trailer plus added load. Do not exceed the lesser of coupler, hitch, vehicle, ball, or trailer weight ratings (including load).
- Use only a 2-5/16" ball rated equal to or greater than the capacity of this coupler. If uncertain, contact Cequent Trailer Products at 800-604-9466 or www.cequentgroup.com.
- Always secure load, vehicle and trailer (by blocking wheels) before latching/unlatching coupler.
- If equipped with a load bearing pin, set screw must be torqued to 75-100 ft.lbs. Otherwise set screws must be torqued to 150-170 ft.lbs. Jam nut(s) must be torqued to 80-90 ft.lbs. Periodically check for proper torque and tighten if necessary. Check for wear on inner tube if retightening is needed.
- If equipped with a load bearing pin, it must be fully inserted through both the inner and outer tubes in order for the coupler to support its rated load.
- Do not tow unless the load bearing pin is fully inserted and retaining pin is installed.

- Do not exceed 8" maximum extension for this gooseneck coupler. Measure the coupler extension as the difference between fully retracted and fully extended positions. Couplers with properly installed load bearing pins and square adjustable gooseneck couplers only extend within this range.
- Keep the ball pocket, latch, and handle clean.
- All welding must be performed by an AWS certified welder.
- This product rated according to SAE J2638.

Before Towing:

- Check vehicle, hitch, ball and coupler for signs of wear or damage. Ensure that the coupler opens, closes, and the handle springs closed when released.
- Replace bent, broken, or worn parts before using this product.
- Ensure that the hitch ball is fully seated in the coupler ball pocket and the latch is closed.
- Make sure that the trailer safety chains are properly connected to the towing vehicle and trailer.
- Make sure that all trailer lighting is hooked up and working properly.

Installation Instructions

WARNING

Failure to follow all installation instructions could result in coupler failure.

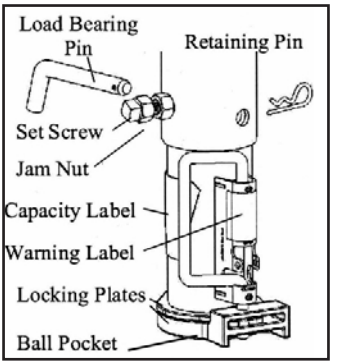
Before mounting the coupler confirm that there will be no interferences from the tow vehicle, tongue, ground, and any other mounted accessories while stationary or in motion. The set screw(s) must be facing the towing vehicle. Before installing, check for interference in extended and retracted positions. Check for interference again after installation is complete. Weld size, gusseting requirements, coupler height, and orientation are dependent on trailer design and customer requirements, however, the outer tube must be supported completely by attaching gussets as low as possible to the outer tube. Avoid heat damage to coupler during welding, and do not weld over or near any holes or hardware on the coupler. All welding must be performed by an AWS certified welder. The outer tube must be rigidly attached to the trailer in order for the coupler to support its maximum rated load according to SAE J2638. Coupler must remain vertical after installation to ensure proper pivoting. After installation, check to make sure that coupler operation has not been impaired in any way. Do not use coupler if its operation has been impaired. After assembly and painting, but prior to being used, any enclosed labels must be affixed to the coupler and premask removed.

25,000# & 30,000# Gooseneck Coupler Installation Guidelines:

1) Be sure that the coupler will reach the towing vehicle to couple with the hitch ball while the load bearing pin is installed properly, or within the extension of the coupler if the coupler is a square adjustable gooseneck. If equipped with a load bearing pin, it must be fully inserted through both the inner and outer tubes and the retaining pin installed in order for the coupler to support its rated load.

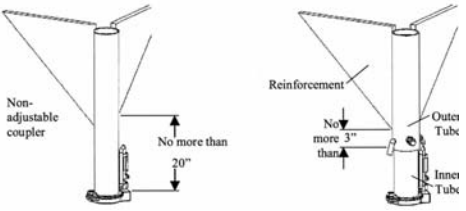
2) Tighten the set screw and jam nut to minimize vibrations in the coupler during towing. Set screw must be torqued to 75-100 ft.lbs. Jam nut(s) must be torqued to 80-90 ft.lbs.

3) Never use the set screw as a replacement for the load bearing.



Gusseting:

To support the coupler's rated load, reinforcements must extend down the outer tube within 3" above the bottom of the outer tube. The coupler must be held rigid and vertical, and must not be damaged by heat during installation. **Note: Reinforcement for non-adjustable couplers must be within 20" above locking plates.**

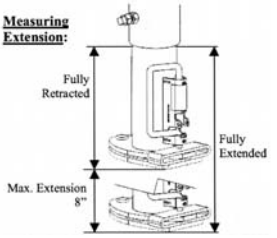


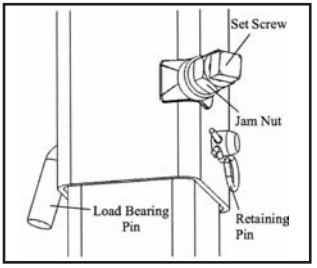
20,000# Round 25,000# Square Gooseneck Coupler Installation Guidelines:

1) Do not exceed 8" maximum extension for this gooseneck coupler.

2) Tighten the set screws and jam nut to secure the coupler during towing. If equipped with a load bearing pin and single set screw, the set screw must be torqued to 75-100 ft.lbs. For non-load bearing pin models with two set screws, torque set screws to 150-170 ft.lbs. Jam nut(s) must be torqued to 80-90 ft.lbs.

3) Never use the set screw or any other device as a replacement for the load bearing pin.

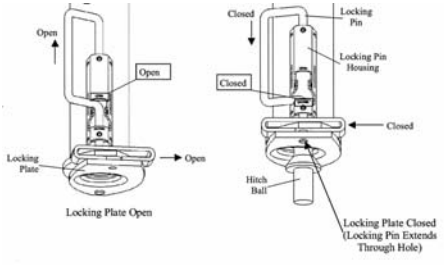




Operation

To Couple:

1) Block trailer wheels.
2) Align hitch ball beneath coupler.
3) Set the locking pin in the open position.
4) Slide the locking plate into the open position and lower the trailer onto the hitch ball.
5) Visually check that the hitch ball is fully seated in the coupler.
6) Slide the locking plate into the closed position.
7) Set the lock pin in the closed position to close the coupler.



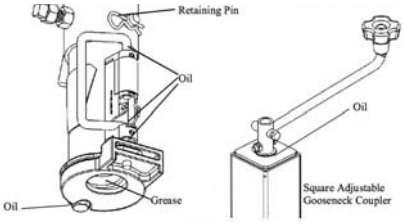
To Uncouple:

1) Block trailer wheels.
2) Set the locking pin in the open position.
3) Slide the locking plate into the open position and raise the trailer from the hitch ball.

Maintenance

Keep ball pocket and mechanism clean. The following procedures should be performed at least annually:

- Check set screw torque
- Grease ball pocket
- Oil pivot points with SAE 30 wt. motor oil.
- Inspect retaining pin and replace if necessary.



How to Order

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Limited Three Year Warranty

Warranty. Cequent Trailer Products, Inc. ("We") warrants to the original purchaser ("You") that the product will be free from defects in material and workmanship for a period of three years under normal use and service, ordinary wear and tear excepted. If the product does not comply with this warranty, We will replace the product without charge to You and within a reasonable time or, at Cequent's option, refund the purchase price. This warranty is not transferable.

Limitations on the Warranty. The warranty does not cover the following: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance; (e) a product altered in any manner by anyone other than us.

Obligations of Purchaser. To make a claim, contact us at 1050 Indianhead Drive, Mosinee, WI 54455, 1-800-604-9466, identify the product, and follow the instructions that will be provided. Any returned product that is replaced or refunded becomes the property of Cequent. You will be responsible for shipping costs to us. Please retain your purchase receipt to verify date of purchase. This must be produced to honor warranty claim.

Remedy Limits. Repair or replacement is the purchaser's sole remedy under this or any other warranty on the product, whether express or implied. We shall not be liable for service or labor charges incurred in removing or replacing product or any incidental or consequential damages of any kind. We expressly disclaim any implied warranty of merchantability or fitness for particular purpose after the three-year warranty period. Some states do not allow the exclusion of incidental or consequential damages or limitation of an implied warranty so the above exclusion and limitation may not apply to you.

Legal Rights. This warranty gives you specific legal rights, and You may have rights other which vary from state to state. **ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON ANY PRODUCT SHALL BE LIMITED TO THREE YEARS FROM THE DATE OF RETAIL PURCHASE TO YOU.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

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www.cequentgroup.com

Read, Understand, Follow and Save These Instructions

- Read, understand and follow all instructions before installing and using this product. Never allow anyone unfamiliar with these instructions to use this product.
- Read, understand and follow all instructions provided by the manufacturer of the product(s) on which this product will be installed.
- Installation of this product must conform to the following mounting instructions.
- Save these instsrtuctions for use as a reference in the future.

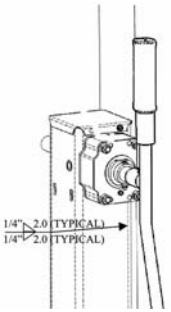
WARNING

Failure to follow these warnings and instructions may result in property damage, serious bodily injury, and/or death.

- Purchaser/owner must ensure that product is installed according to these instructions. Purchaser/owner must not alter or modify the product.
- Operator and bystanders should never position any body part under any portion of this product or the load being supported.
- Do Not allow children to play on or around this product or the load being supported.
- Fully retract and/or rotate jack before towing.
- When using the drop leg, make certain the drop leg pin is fully inserted before using the jack.
- Secure the load, vehicle and trailer from rolling (by blocking wheels) when operating jack or coupling trailer.
- Jack capacity is limited to the lesser of the jack, footplate, or caster wheel capacity.
- Never exceed maximum rated capacity. Refer to stamped markings or decals on product to obtain capacity. If uncertain, contact Cequent Trailer Products at 800-604-9466 or www.cequentgroup.com
- These jacks are designed for vertical loading. Excessive side forces may cause jack failure and must be avoided.
- If this product has a pivot tube mount, make certain the pivot pin is fully inserted through both sides on the pivot tube and the pivot mount.
- If this product has a drop leg, never attempt to adjust the drop leg when the jack is under load.
- These jacks are designed for mounting to flat surfaces only.
- Keep clear of pinch point at drop leg pin. The drop leg will naturally drop or retract very quickly depending on model.
- Keep clear of holes in drop leg.
- All welding must be performed by an AWS certified welder.
- Always replace bent, broken, or worn parts before using product.

Installation Instructions

Before mounting the jack confirm that there will be no interference from the tow vehicle, tongue, ground, and any other mounted accessories while stationary or in motion. Before installing, check for interference in all positions including handle swing (in both gears, if applicable) and swivel positions if applicable. Check for interference again after installation is complete.



Direct Mount to Load-Bearing Member:

1) All welding must be performed by an AWS certified welder.

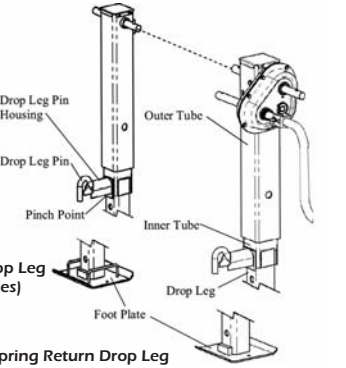
2) Three 2" long 1/4" fillet welds must be placed on both sides of the jack along the contacting surface. The welds should be as far apart as possible to maximize strength under load.

3) If mounting in a tandem application, align the jacks carefully so they raise and lower together and share the load equally.

2-Speed Shift Pattern:

The jack handle moves 5/8"-3/4" while shifting. This clearance must be accounted for during installation.

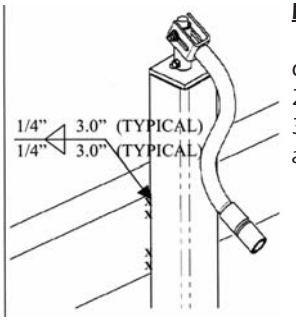
- High gear is engaged when the shaft is pushed in.
- Low gear is engaged when the shaft is pulled out.



Non-Spring Return Drop Leg
(Equipped w/handles)

Spring Return Drop Leg
(Not Equipped w/handles)

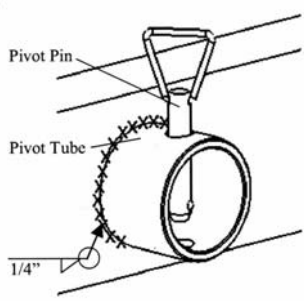
CAUTION: Spring return drop leg has high tension return spring



Direct Mount:

1) All welding must be performed by an AWS certified welder.

2) Place the jack at the desired location. Weld 3" in 2 locations on both sides of the jack using a 1/4" fillet weld.

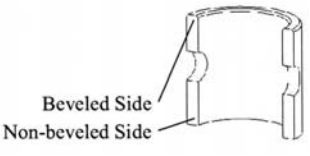


Weld-on Pivot Tube Mounting Instructions:

1) All welding must be performed by an AWS certified welder.

2) The non-beveled side of the pivot tube is welded to the tongue.

3) Place the weld-on pivot tube against the tongue and weld all around with a 1/4" fillet weld. Align one set of pivot mount holes vertically.



4) Mate the jack to the pivot tube and secure the supplied pin.

Drop Leg Operation

Spring Return Drop Leg Operation:

WARNING: Drop leg will naturally retract very quickly.

1) Verify that the jack is not supporting any load.

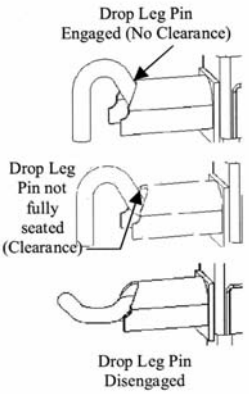
2) If extended, place your foot on foot plate to control the return of the drop leg.

3) Disengage drop leg pin by rotating to the disengaged position.

4) Carefully move the drop leg to the desired position using your foot.

5) Engage the drop leg pin by rotating it to the engaged position and into the desired adjustment hole.

6) Verify that the drop leg pin is fully inserted into the jack by checking for no clearance between the drop leg pin and housing. If you see clearance, you must adjust the drop leg to fully seat the pin into the hole location. You may need to lubricate the drop leg pin assembly as described in the maintenance section. If you are unable to fully seat the pin DO NOT USE.



Non-Spring Return Drop Leg Operation.

WARNING: Drop leg will naturally fall.

1) Verify that the jack is not supporting any load.

2) If retracted, grasp the handle of foot plate to control the fall of the drop leg.

3) Disengage drop leg pin by rotating to the disengaged position.

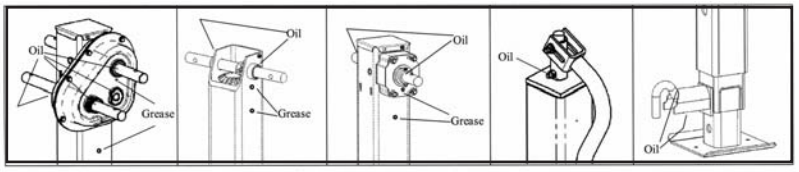
4) Carefully move the drop leg to the desired position.

5) Engage the drop leg pin by rotating it to the engaged position and into the desired adjustment hole.

6) Verify that the drop leg pin is fully inserted into the jack by checking for no clearance between the drop leg pin and housing. If you see clearance, you must adjust the drop leg to fully seat the pin into the hole location. You may need to lubricate the drop leg pin assembly as described in the maintenance section. If you are unable to fully seat the pin DO NOT USE.

Maintenance

The following procedures should be performed at least annually:
The gears, bushings, and screw of the jack must be kept lubricated. For side-wind models, apply a small amount of automotive grease with a grease gun at the lubrication points found on the side of the jack near the input shaft. Rotate the jack handle to distribute the grease evenly. A lightweight oil must be applied to the input shaft bushings at both sides of the jack or gear box. For top-wind models, the screw-stem should be lubricated with a light-weight oil. If equipped, the drop leg pin and spring must be kept clean and lubricated with a light-weight oil.



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Remedy Limits. Repair or replacement is the purchaser's sole remedy under this or any other warranty on the product, whether express or implied. We shall not be liable for service or labor charges incurred in removing or replacing product or any incidental or consequential damages of any kind. We expressly disclaim any implied warranty of merchantability or fitness for particular purpose after the three-year warranty period. Some states do not allow the exclusion of incidental or consequential damages or limitation of an implied warranty so the above exclusion and limitation may not apply to you.

Legal Rights. This warranty gives you specific legal rights, and You may have rights other which vary from state to state. **ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON ANY PRODUCT SHALL BE LIMITED TO THREE YEARS FROM THE DATE OF RETAIL PURCHASE TO YOU.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

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